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THE

NEW YORK STATE

Military Census and Inventory

New York (State) [illegible]

A REPORT

TO

Hon. CHARLES S. WHITMAN

Governor of the State of New York

1917

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REPORT

Honorable CHARLES S. WHITMAN, *Governor of the State of New York:*

SIR.— The New York State Military Census and Inventory, conceived and ordered by you, has been, in accordance with your instructions, organized, taken, coded, tabulated and deposited in the place assigned to it in the State Capitol at Albany ready for use.

It is proper that a report of this undertaking should be made to you, and the following summary of the work accomplished and the expense incurred by the State under chapters 103 and 409 of the Laws of 1917, are therefore presented to you for your consideration.

In the early part of the year 1917, you appointed George Garr Henry, of New York city, Director of the State Military Census and Inventory, and commissioned him captain in the Adjutant-General's Department, the census being a part of the military preparation of the State to assist the nation in the conduct of the war against Germany.

You signed the census bill, chapter 103, passed by the Legislature March 5, on March 29, 1917. Captain Henry at once proceeded to organize the necessary staff for carrying out this work. His task was a difficult one, inasmuch as he had no precedents to go by, no similar enterprise to use as a model. No state in the United States had ever taken such a census. The Federal government furnished no example to be followed. Nothing existed which might act as a guide, except the similar work of European nations, which was of little use in view of the fact that conditions existing on the other side of the Atlantic were so greatly at variance with the conditions existing in New York State.

At the same time, also, there existed in many quarters within the State itself and in Washington a distinct feeling of doubt as to whether the immense labor and expense of taking and preparing such a census were worth the returns which might be reason-

ably expected from it. It must, therefore, be a source of satisfaction to you, now, to know that this census has already more than paid for itself.

The task of persuading 5,600,000 men and women to answer the eighty odd questions within the space of fifteen days was alone a difficult and unprecedented one. But in the case of New York State the city of New York presented problems not existing in any other State in the Union. The port of New York with its transitory population presented a unique problem; the city of New York, with its hundreds of thousands of inhabitants who neither speak nor write the English language was another problem, not to the same extent existant elsewhere. The cities, towns and villages of the State presented less difficult, but quite different problems, requiring a general plan of organization sufficiently flexible to admit of a census taking that should work in harmony with the conditions in New York city.

Captain Henry, realizing the problem as a whole, at once proceeded to gather around him in Albany the leading experts in card coding and tabulation, for the purpose of deciding the smallest number of questions which the citizens of the State should be asked to answer and which at the same time should once for all furnish the information that the State, or the Federal government, might wish to be possessed of for the successful prosecution of the war.

He first consulted army and navy officers and secured from them the heartiest support and greatest assistance. Major-General Leonard Wood's advice was especially valuable, not only in his whole-hearted support of the plan, but in the specific suggestions which he made in regard to the information that would be needed.

Captain Henry then consulted Mr. Arthur Hunter, President of the Actuarial Society of America — the leading expert in this country, or any other, in actuarial and medical statistics. Through the patriotic spirit of Mr. D. P. Kingsley, president of the New York Life Insurance Company, and of the directors of that company, Captain Leo H. McCall, Mr. John M. Gaines, Mr. F. D. Mack, Mr. H. B. Tolen, Mr. E. D. Murphy, and Mr. C. A. O'Brien were released from the company, their salaries being continued meanwhile, in order that the State should have their voluntary assistance. These experts were assembled in Albany in the first days of April, 1917, and with untiring effort and enthusiasm they proceeded to tackle the problem at hand,

under the direction of Captain Henry, to prepare the questions, plan the organization for taking the census, and the second organization for coding, carding and tabulating the result thus obtained; so that the census might be assembled in such form that it would be of immediate and constant use. It was evident that the actual taking of a census of this magnitude, though difficult, would nevertheless be possible; but the point of greatest importance was to arrange it so that any kind of information could be secured from it immediately and without error. This has been accomplished in such a form that the cards can now be sorted into any classification at the rate of 15,000 per hour, or 150,000 in a ten-hour day, by one machine. Six machines can sort 1,000,000 cards a day. It is difficult to conceive the magnitude of this work. Something like 30,000,000 blanks, forms and pamphlets of one kind or another had to be printed and delivered to every corner of the State.

It was found that an average of twenty minutes was required by the ordinary person to fill out one of the census blanks, and in the case of New York city carefully instructed assistants were necessary, people who could speak most of the languages of the earth as well as English, in order to help those who spoke no English. One hundred and eighty thousand volunteer helpers were required to do this work, without pay, as no funds were available from the State resources for such a purpose. If one blank was filled out every minute, it would have required fourteen years to complete the work; but the plan allowed only fifteen days. The task was immeasurably greater than the Federal draft, since though the total number was 5,600,000, as against 9,000,000 for the draft, the information required on the State census blanks was ten times greater and infinitely more complex and personal.

Captain Henry proceeded to organize the work, with your unvarying encouragement and support. He took advantage of the County Home Defence Committees which you had already organized in each county of the State. A conference at Albany of these committees on April 16, 1917, furnished an opportunity for explaining the work which they were to do and helped to make the matter clear at the start.

The plan placed the responsibility of the census taking in each county upon the county committees. Each county committee in turn organized local committees, which again in turn organized registration district committees. The unit of the smallest

area was the registration district, and under the law every resident of the State, male and female, between the ages of 16 and 50, was required to come to his or her registration booth within the days set for the census taking, and to answer all questions upon the census blanks. In the case of New York city, where more than half the people of the State must register — specifically, 3,280,870 out of 5,600,000 — Mayor Mitchel's committee already existing, undertook the work of registration with Mr. E. P. Goodrich, of the Bureau of Municipal Research, as the direct head of the military census for the city.

Each county was allowed to decide for itself whether the census should be taken from the registration booths or by house to house canvass; and they proceeded to organize and enlist the voluntary assistance of the required number of men and women to act as registrars, managers of registration depots, and so on. It will be a source of pride to the people of this State to know that approximately 180,000 volunteers — men and women — for two weeks served their State faithfully and voluntarily, not only without pay, but in many cases at great expense to themselves, to make this military census the extraordinarily complete and useful record that it is.

By May 1st, the plans for taking the census and coding it were ready. At that time, or shortly before (April 18th) you received a communication from Washington requesting that the State census should be delayed until the Federal draft, then being discussed in Congress, should be completed. This action caused about one month's delay, but the time was used to great advantage for completing all the minor details of the work, so that no difficulties which might arise should delay or nullify the completion of the task. Meantime, on May 7th, the Legislature, at your suggestion, passed chapter 409, which made it compulsory for all people between the ages of 16 and 50 to register under the State census, and which imposed legal penalties upon those who failed to do so.

Following your proclamation of June 6th — the day after the Federal draft — announcing the dates for the military census, the work was continued; and between June 11th and 25th, inclusive, approximately 5,600,000 men and women registered peacefully and quietly, without trouble of any appreciable kind, and practically without the necessity for inflicting penalties anywhere in the State.

For the next few weeks, the county committees went busily to work gathering in the hundreds of thousands of blanks, grouped in the main classification of male, female and age, and gradually these were shipped to the Census Bureau in New York city.

It had been at first planned to carry out the work of coding, typing, punching and tabulating in Albany at the Census Bureau, but it became evident early in the conduct of the enterprise that the city of Albany could not furnish the expert card coders and punchers, all of whom would have to be brought from New York city. Furthermore, the fact that upwards of 800 clerks would be required in addition to these experts, made it evident that the New York city labor market could more easily and quickly furnish these people. Through the efforts of Mr. F. D. Mack, the city donated three floors in the building at 49 Lafayette street, at a rental of one dollar per year for this work, and the offices of the Military Census Bureau were, therefore, transferred there in early July, and closed altogether in Albany, by August 1st, in order to save money.

The work of coding the blanks, typewriting the name and address of each of the 5,600,000 names on a separate card, the punching of these cards, and the final tabulating of them, was begun at once by these 800 or more clerks, under the direction of Captain McCall and his assistants. In order to reduce the cost wherever possible, petitions were sent out to business organizations in the city, asking them to send, as their contribution, units of three clerks to serve one or two weeks. The response to this petition was encouraging. In many cases instead of sending the clerks, the business organzations sent their checks to pay for their quota.

In spite of this patriotic spirit, however, and generous as it was, the payroll amounted to approximately $1,000 per day for three months. The necessity for this large force can readily be understood when it is realized that each of the 5,600,000 blanks and cards had to be handled eight or nine times at least, in addition to the verifying process attending each step.

The work was somewhat complicated by the requests that came in constantly from the different branches of the Federal government, from departments of the Army and Navy in Washington and in New York City, from the British Commission, the Canadian government, and the various State departments of New York and

other states, asking for lists of all the various classifications made available by the census and obtainable nowhere else. Work had to stop from time to time in order that this material might be gotten out, not only because the men in charge desired to give immediate answers to all legitimate requests, but also because they acted in obedience to your explicit instructions that all such requests should be honored at once.

In no instance were more than forty-eight hours required to answer any request of this sort, until late in September, when the time for packing the blanks and cards for shipment to Albany arrived, and they were, therefore, temporarily not accessible.

On September 26th a detachment of the New York State Guard under Col. J. W. Myers, acting under Adjutant-General Sherrill's instructions, began the movement of the original blanks to the arsenal in New York for temporary safekeeping. This was completed on October 5th, and on October 8th the State troops started upon the work of transporting the cards in their steel cases to barges in the North river, whence they were towed to Albany and placed in the Capitol on October 16th, ready for use. The work of getting out information in response to the large number of inquiries which had accumulated since September 20th was at once begun, and is now proceeding.

During the month of September, the Division of Co-operation of States of the Council of National Defense at Washington, of which Mr. George F. Porter is the head, took up the question of the advisability of suggesting to the various States of the Union that they take such a census. It has become more and more evident that the nation as a nation must have some such military census and inventory of all the people of the United States. As a first step in this matter, Mr. Gifford, of the Council of National Defense, through Mr. Porter, approached you and asked you to recommend an expert who should go to Washington and assist the Government in the preparation of such a plan. You recommended Mr. John M. Gaines, and he is now at work upon this matter in Washington, with all the records of the New York census at his disposal.

The work of all those who patriotically volunteered their services for this immense task is beyond praise; but the task which Captain Henry carried out and the spirit which he enthused into his willing helpers stands out pre-eminently. His tragic death on July 4th, on the polo field at Morristown, N. J., cut short his services to the State; but he had completed all the great work of organizing the

census, had finished the task of actually taking it and had prepared the machinery for coding, typing, punching and tabulating it. What was left to be done was but the carrying out of his plans.

The financial aspect of this work is interesting and worthy of your special attention. The bill of March 5th appropriated $150,000 for the taking of the census and empowered you to receive such voluntary subscriptions as might be necessary to complete the work. This sum was used, and the State Defense Council appropriated $55,000 additional from funds in its hands for such military purposes as it should deem advisable. In addition to this, the sum of approximately $22,000 was voluntarily contributed by patriotic men of New York City to complete the work. The total cost of the military census was $227,000, or approximately four cents per person — a figure which is probably lower than the cost of any other census ever taken in any State of the United States. There was an additional charge of approximately $30,000 for the purchase of the steel filing cases in which the blanks and the cards are to be permanently maintained; but as this is a maintenance charge it cannot properly be included as a part of the cost of the taking of the census itself.

The whole task required a period of approximately five months (the month of May not being computed, since the matter was delayed during that month awaiting the taking of the Federal draft). Much labor could have been saved if Captain Henry had known in the beginning that a Federal draft was to be taken of men between the ages of 21 and 30; but in March no one could have foreseen this.

The work is completed and the census is in actual use. The State is to be congratulated on the foresight which realized the necessity for such an act of preparation.

This census will be of use in an indefinite number of ways for approximately two years. It will then become out of date. It is perhaps therefore proper to offer to you the suggestion that you consider the advisability of making this census permanent by keeping it up to date. Two purposes would thus be served; i. e., the most complete census and inventory ever taken in this country is at hand, prepared primarily for use during the war; but its use would be inestimable after the war in the period of reconstruction and readjustment which will be inevitable. Furthermore, it would, if maintained, obviate the necessity for the taking of censuses periodically in the future, and it would do away with the

necessity for several detailed censuses on special subjects which are now a constant charge upon the State.

It would seem that a method of keeping the State military census up to date might be devised by using the immense but scattered machinery now existant for acquiring vital statistics throughout the State, under the plan of transmitting duplicate information to a central census bureau in Albany upon all such details wherever obtained within the State.

In view of the many technical points connected with the different parts of the census, it is proper to submit to you more detailed reports of some of the special problems which presented themselves to the organizers. The technical tabulation is of great importance. The immense problem of handling New York City is also of vital significance. The methods followed by the county Home Defense committees cover another point, and it is proper that a somewhat detailed financial report should be added. There are, therefore, appended to this report for your consideration, abstracts of these special problems which are, with what has already been written above, herewith respectfully submitted, sir, to you.

J. H. SEARS,*
Director.

Albany, N. Y., *October* 20, 1917.

*Appointed to succeed Captain G. G. Henry.

II. THE PLAN OF COMPILATION

When Captain Henry became Director of Census it was agreed that the most up-to-date devices in existence be employed in carrying on the work. He accordingly called into conference the representatives of two companies which make a specialty of manufacturing electrical sorting and tabulating machines, such as had previously been used in census work, in the life insurance companies, in railroad offices and in large department stores. These experts in the tabulation of statistics, although rivals in business, gave their services gladly to the State of New York and helped in every way to make the compilation of the census a success.

Before the plans for the compilation of the census could be made, it was necessary to determine what would be the nature of the statistics desired by the military authorities. The group of experts already mentioned first prepared, under the Director's instructions, a questionnaire which covered all the vital points based upon their previous experience of what would be of value to the State and the Federal Government. In this work they had for their guidance a statement of what had been done in Great Britain in connection with the tabulation of men eligible for military duty.

After this questionnaire had been prepared, it was submitted to the Adjutant-General of the State of New York and also to the War Department at Washington for criticism and suggestions. With help from these and other sources a blank was perfected which, when answered by each individual, would give information regarding the availability of men for military service or for work necessary for the prosecution of the war, as well as information regarding the availability of women for the various kinds of work to which they were best adapted. Provision was also made on the blank to determine the resources of the State with respect to mules, horses, heavy wagons, automobiles, heavy trucks, motor launches, power boats and wireless outfits.

In studying the questions which were used, it should be borne in mind that the tabulation was desired quickly, and that as many persons did not speak English, it was necessary to make the questions simple, definite and clear. Additional information could be obtained at a later date from the individuals themselves, if that became necessary.

All residents of the State of New York from the ages of 16 to 50 were required to fill out the questionnaire.* When the work was first planned it was expected that the State would be asked to give a list of the men available for the draft, and accordingly one

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*THE QUESTIONNAIRE FOR MALES.

DO NOT WRITE IN THIS MARGIN

Election District..... Subdivision..... Town or City..... County.....

STATE OF NEW YORK

THE ADJUTANT GENERAL'S OFFICE

MILITARY CENSUS BUREAU

ALBANY

Census and Inventory of the Military Resources of the State under Chapter 103, Laws of 1917, and Acts Supplementary Thereto, and Enrollment of Persons Liable to Service in the Militia under Chapter 41, Laws of 1909, and Acts Amendatory Thereof (Military Law) by Order and Direction of the Governor

Form for Males 16 to 50 Years of Age Inclusive. Use Pen and Ink. Sign Personally. Do Not Fold

1. How old are you?..... (a) When were you born? (year).....(month).....(day).....
2. What is your full name?.....
3. In what city, town or village do you live?..... (a) On what street, road or avenue?.....
   (b) On what rural free delivery route?..... (c) House number?.....
4. Were you born in the United States?..... 5. In what country were you born?.....
6. Are you white or colored?..... 7. How long have you lived in the United States?.....
8. How long have you lived in the State of New York?.....
9. Are you a citizen of the United States?..... (a) By birth or by naturalization?.....
   (b) When were you naturalized?.....
10. If not a citizen, have you taken out your first papers?..... 11. Of what country are you a citizen or subject?.....
12. In what country was your father born?..... 13. In what country was your mother born?.....
14. Are you married?..... (a) Is your wife living?.....
15. How many persons, including only mother, father, wife, or child, sister or brother under 12 years of age are dependent upon you for their entire support?.....
16. Have you attended elementary school?..... (a) High school?.....
    (b) Technical school?..... (c) College?.....
17. Do you speak English?..... (a) What other language do you speak?.....
    (b) Have you ever acted as interpreter of any foreign language?..... (c) If so, what language?.....
18. Do you hold any public office or position under the National or State Government?.....
    (a) If so, what?.....
19. In what industry, or business are you engaged?.....
    (a) In what capacity or position?..... (b) Exactly what work do you do?.....
20. Have you a trade or profession?..... (a) If so, what is it?.....
    (b) If not, what work do you do for a living?.....
21. In what other kind of work have you had most experience?.....
22. Are you particularly skillful in any line of mechanical work?.....
    (a) If so, what line?.....
23. Are you in business for yourself?.....

set of blanks covered men from 21 to 30 years of age, and was printed in red, in order that it might be readily segregated from the others. The Federal draft, however, made this work unnecessary.

24. If not, what is the name of your present employer?.....
(a) What is your employer's business?..... (b) What is your employer's business address?.....

25. Have you ever acted as agent or otherwise for any foreign country, manufacturer, dealer, or merchant?.....

26. Have you ever been in the military or naval service, or had military or naval training at school, college, camp or cruise?.....

(a) In what organizations?	(b) Date of enlistment?	(c) Date of discharge?	(d) In what grade?

27. Are you now in the military or naval service?..... (a) In what organization?.....
28. Do you claim exemption from military service?..... (a) If so, upon what ground?.....

29. Do you desire to enlist in the United States Army?..... (a) The United States Navy?.....
(b) The U. S. Marine Corps?..... (c) The New York National Guard?
(d) The New York Naval Militia?.....

30. For what particular arm or branch of the military service do you believe yourself to be best fitted?.....

31. Can you operate: (a) An automobile?..... (b) A motorcycle?.....
(c) A power boat?..... (d) An aeroplane?.....
(e) A telegraph instrument?..... (f) A wireless outfit?.....
(g) A stationary steam engine?..... (h) A steam locomotive?.....

32. Have you ever been employed in shipbuilding?..... (a) In what capacity?.....

33. Are you a licensed pilot?..... (a) Navigator?.....

34. Do you own any of the following? If so, how many of each?

PROPERTY	How many	PROPERTY	How many
Automobiles.....	.....	Heavy wagons or trucks.....	.....
Auto trucks.....	.....	Wireless outfits.....	.....
Motor launches.....	.....	Draft horses.....	.....
Power boats.....	.....	Saddle horses.....	.....
Rifles.....	.....	Mules.....	.....
Vans.....	.....	.....	.....

I hereby declare that the foregoing answers are true,
[Sign here name in full]

.....
(First name) (Middle name) (Last name)

[Do not fill in]
Enrollment taken and card issued by

.....
Agent, Military Census.

The list of questions and the order in which they were listed required weeks of study in order that the greatest amount of accurate information might be secured with a minimum of trouble and misunderstanding.

Age

The most important factor was age, and in order that this might be checked the first requirement was the exact date of birth.

THE QUESTIONNAIRE FOR FEMALES.

DO NOT WRITE IN THIS MARGIN

Election District..... Subdivision..... Town or City..... County.....

STATE OF NEW YORK

THE ADJUTANT GENERAL'S OFFICE

MILITARY CENSUS BUREAU

ALBANY

Census and Inventory of the Military Resources of the State under Chapter 103, Laws of 1917, and Acts Supplementary Thereto, and Enrollment of Persons Liable to Service in the Militia under Chapter 41, Laws of 1909, and Acts Amendatory Thereof (Military Law) by Order and Direction of the Governor

---

Form for Females 16 to 50 Years of Age Inclusive. Use Pen and Ink. Sign Personally. Do Not Fold

1. How old are you?..... (a) When were you born? (year).....(month).....(day).....
2. What is your full name?.....
3. In what city, town or village do you live?..... (a) On what street, road or avenue?.....
   (b) On what rural free delivery route?..... (c) House number?.....
4. Were you born in the United States?..... 5. In what county were you born?.....
6. Are you white or colored?..... 7. How long have you lived in the United States?.....
8. How long have you lived in the State of New York?.....
9. Are you a citizen of the United States?..... (a) By birth or by naturalization?.....
   (b) When were you naturalized?.....
10. If not a citizen, have you taken out your first papers?..... 11. Of what country are you a citizen or subject?.....
12. In what country was your father born?..... 13. In what country was your mother born?.....
14. Are you married?..... (a) Is your husband living?.....
    (b) What is your husband's full name?.....
15. In what country was your husband born?..... (a) Is he a citizen of the United States?.....
    (b) Of what country is he a citizen or subject?.....
16. How many children have you?..... 17. How many persons, including only mother, father, or child, sister or brother under 12 years of age are dependent upon you for their entire support?.....
18. Have you attended elementary school?..... (a) High school?.....
    (b) Technical school?..... (c) College?.....
19. Do you speak English?..... (a) What other language do you speak?.....
    (b) Have you ever acted as interpreter of any foreign language?..... (c) If so, what language?.....

Address

The next point of importance was the address of each individual. As a further check and in order to readily locate the men and women of a given occupation, the name of the present employer, his address and business were called for by the blank.

Country of birth

If the individual was not born in the United States, he or she was requested to give his or her country of birth. This involved

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20. Do you hold any public office or position under the National or State Government?.....
    (a) If so, what?.....
21. Are you employed in any industry or business?.....
    (a) In what capacity or position?..... (b) Exactly what work do you do?.....
22. In what other kind of work have you had most experience?.....
23. Are you in business for yourself?.....
24. If not, what is the name of your present employer?.....
    (a) What is your employer's business?..... (b) What is your employer's business address?.....
25. Are you a registered trained nurse?..... (a) A practical nurse?.....
    (b) Have you had any experience in surgical cases?..... (c) Have you completed a course of training in First Aid?.....
    (d) Have you worked under the Red Cross?..... (e) Have you made hospital supplies?.....
26. Can you:
    (a) Drive an automobile?..... (e) Operate a typewriter?.....
    (b) Operate telegraph instrument?..... (f) Do general clerical work?.....
    (c) Operate a telephone switchboard?..... (g) Do general agricultural work?.....
    (d) Take shorthand?..... (h) Make garments?.....
27. Do you own any of the following? If so, how many of each?

PROPERTY	How many	PROPERTY	How many
Automobiles.....		Heavy wagons or trucks.....	
Auto trucks.....		Draft horses.....	
Motor launches.....		Saddle horses.....	
Power boats.....		Mules.....	
Vans.....		.....	

I hereby declare that the foregoing answers are true,

[Sign here name in full]

.....
(First name) (Middle name) (Last name)

[Do not fill in]
Enrollment taken and card issued by

.....
Agent, Military Census.

considerable discussion as to the countries which should be tabulated, and it will be seen from the form which countries were selected. For obvious reasons, the length of time the individual had lived in the United States and the length of time he had been a resident of the State of New York was also required.

Citizenship

In connection with citizenship, the question was asked whether or not the individual was a citizen of the United States, and if so, whether by birth or naturalization. The date of naturalization was also required. If not a citizen, the question "Were first papers taken out?" was to be answered. If not a citizen of the United States, the blank asked of what country the individual was a citizen or subject. It was recognized that the country did not exactly determine citizenship. There were persons born in England, France, Germany, etc., who were citizens of the United States because their parents were citizens of this country.

Parents' birthplace

In the event that the question of the country in which the parents were born ever became a factor in determining a man's availability for military service, it was decided to insert a question covering the parents' birthplace.

Availability for military service

It should be borne in mind that this census was primarily a military census, and that being so it was important to determine

Election District..... Subdivision.....

Town or City..... County.....

STATE OF NEW YORK

Military Census and Inventory of 1917

BY COMMAND OF THE GOVERNOR

This Certifies that the bearer whose signature appears on the line following

Name.....

Residence.....

has been enrolled in the Census and Inventory of Military Resources of the State.

NOT TRANSFERABLE

.....

County Director of Census

by .....

Agent

THE REQUISITION CARD

(*Facsimile*)

the number of dependents in each individual case. Accordingly a question was embodied in the blank to show whether or not a man was married, whether or not his wife was living and how many persons including father, mother, wife or children, sister or brother were entirely dependent upon him for support.

Education

The educational section of the census was divided into four parts, those who had attended (1) Elementary School (2) High School (3) Technical School (4) College. This was intended to enable the authorities quickly to segregate those who had technical education.

Languages

As a knowledge of languages was of value to the military authorities, the blank was so arranged that those who either spoke another language than English, or those who had acted as interpreters of any foreign language, could be tabulated separately.

Trades, occupations or professions

In order to determine the availability of residents of New York State for military service, it was necessary not only to ascertain their trades, occupations or professions, but to find out as well whether they held any public office under the National or State governments which would exempt them from conscription.

Former occupations

It was deemed desirable to ascertain the exact nature of the trades or callings formerly followed; since it might easily happen that a man now following an occupation which was not essential to the prosecution of the war might have had training in some other trade which would make him a very valuable man for military service. A tabulation of the occupational section of the census is an exceedingly difficult one and accordingly the questions had to be framed with great care. The magnitude of this work can best be judged from the fact that the Federal Census Bureau prepared a list of 17,000 occupations and suboccupations in connection with the census of 1910, but only one-third of the cases came directly within this lengthy list. In the case of the present census, the exact occupations in many instances were not of special interest to the Government; many of them were grouped; others were handled individually, because they seemed of vital importance to the State in time of war.

Foreign business connections

The question was asked, "Have you ever acted as agent or otherwise for any foreign country, dealer or merchant?" The purpose of this question was two-fold, first, to obtain a list of men who had had experience in business dealings with other countries, since their services in that case would be of great value to the United States; and second, to obtain a list of foreigners who might endeavor to keep up secret relations with the enemy country.

Military or naval service

Every man between the ages of 16 and 50 was asked to give an account of his military or naval service, military or naval training at school, college or on cruise. He was also asked to state whether he desired to enlist in the United States Army, Navy, Marine Corps, National Guard or Naval Militia. This list has been used extensively already by the government.

Accomplishments

Under this heading were recorded persons who were able to drive automobiles, manage power boats, run steam engines or stationary engines and also those who could use a telegraph instrument or a wireless outfit.

Special occupations

The Federal Government was anxious to obtain men who were schooled in shipbuilding and those who were navigators or pilots. Accordingly all men were asked if they had ever been employed in shipbuilding, and if so, in what capacity, and if they were navigators or licensed pilots.

If the census were to be taken again, a number of changes would be made. Greater details of certain occupations would be required and the willingness of the workers in certain occupations to be transferred to another section of the country would be determined. Furthermore, if any other state now wished to take a similar census, much of this could be eliminated because the Federal Registration has given information on men from 21 to 30.

Women

The principal information desired from women was along the same line as that for men, with regard to age, residence, nationality, citizenship, place of employment, education and knowledge of foreign languages.

With regard to their availability for military service, however, different information was desired. They were asked whether they were registered nurses, practical nurses, had had experience in surgical cases, had completed courses in training in first aid, had worked under the Red Cross, or had made hospital supplies. Information was also required as to their ability to drive automobiles.

As there was great demand in commercial and government departments for the services of women, it was deemed advisable to obtain information as to the number who could operate typewriting machines, take shorthand, operate telephone switchboards or telegraphic instruments, or do general telegraphic work.

At the time the census was taken it was evident that there would be a demand for women able to do agricultural work and sewing for the soldiers and sailors and the destitute in Europe. Information was accordingly obtained on these subjects.

Method of compilation

In all tabulations of this nature the main idea to be kept in mind is that the different groups may be tabulated and compiled as quickly as possible. The system, therefore, must be so elastic that a large number of compilations may be made with as little sorting of cards as possible. Furthermore in order to avoid errors, the work should be largely mechanical. A system of coding,* therefore, had to be devised, because writing information in longhand on the cards and sorting by hand was not practical when 5,600,000 cards were involved, which had to be divided into hundreds of groups and subgroups.

The system in use at the present time for accomplishing the compilation of statistics rapidly is based upon two ideas:

> The translation into codes of the data which has been gathered.
>
> The transfer of the coded information to cards by means of perforating machines, thereby making it possible to use electric sorting and tabulating devices.

Vital information from records

It may readily be seen from the questions in the blanks that a large amount of valuable information might be obtained, if a proper system were installed for producing such a tabulation

* See appendix, page 77.

quickly and inexpensively. A complete list, for example, could be obtained from the records of those who could make hospital supplies. Or if the government decided to mobilize women who had experience in agricultural work, their names would be available, as would also be the names and addresses of men experienced in navigation. If information were desired in regard to any particular resources of the State, whether mules, horses, or motors, etc., the names and addresses of the owners of such resources would be available.

Perforated cards

The simplest way to explain the method used in compiling the statistics is to give samples of the cards used.

Under the heading of age, appear, two columns of figures each running from 0 to 9. If the 2 in the first column were perforated by a machine and the 4 in the second column, these would stand for age 24; but if the 4 were perforated in the first column and the 2 in the second, that would stand for age 42. As the card consists principally of figures from 0 to 9, it is evident that where figures cannot be employed a code must be prepared which will record postoffice, nationality, occupation, military experience, etc., by means of figures. For example 01 might represent "Born in the United States," 02 — "Born in the United States Territories and Possessions," 03 — "Born in England," 04 — "Born in Ireland," etc.

The number represented by the code is placed opposite each question on the blank, duly checked, and then handed to the clerk who perforates the card on a perforating machine.

There are two methods of insuring accuracy of the work of card perforating. By the first method cards may be perforated in duplicate from the original record by two clerks using different machines and they may then be compared by holding the cards together to see whether the perforations have been made in identically the same place. It is customary to have the two sets of cards in different colors, so as to facilitate checking, to avoid errors, and to enable the data to be filed in two ways. It may be advisable to keep one set filed according to names for reference, while the other set is used for statistical purposes. By the second method — the one adopted by the New York State Military Census — only one card is perforated. The card is then taken to a perforator, along with the original record. The perforator passes the

card into a machine which looks like a perforating machine and which is operated in the same manner, but which does not perforate. If the perforation does not already exist in the proper place, the machine "locks" when the key is struck and thus the error is located.

Whichever method is used it is customary to take samples out of the completed cards and have them checked anew against the original record by a responsible person.

After the cards are prepared the sorting is done by a machine which will sort the cards in any column at the rate of 15,000 per hour. If, for example, it were decided to tabulate all the men in New York from ages 16 to 49, according to age, the cards first would be sorted by the first column under age. The names from 16 to 19, from 20 to 29, from 30 to 39, and from 40 to 49 would appear in these four groups. The cards in any of these groups would then be sorted according to the second column. For example, all those from 20 to 29 would be put in the machine and the machine would then divide them into ages from 20, 21, 22, etc., up to 29. If they were then to be divided into the four education groups, the machine would be set so as to divide them according to the figures 1, 2, 3, 4 in the twelfth column of the card. Thus, the men from ages 20 to 29 would be divided according to whether their education was elementary, high school, technical school or college.

Having made such divisions as are desired a summary of the cards may be made in each group by another machine. For this purpose a special machine was constructed by the Tabulating Machine Company, making it possible in one operation to obtain a summary of the "accomplishments" of either men or women. If, for example, all the cards were passed through this tabulating machine it would be known how many men could run automobiles, power boats, wireless outfits, stationary engines or locomotives, etc.

Codes used in compiling census data

The first two columns of the post-office code covered the county, so that the cards could be sorted according to county. The second two figures in the code covered cities, towns and villages, etc.

The English speaking countries were generally under code numbers 0 to 09, other European allies, from 10 to 18, pro-German countries from 30 to 36, neutrals from 40 to 46, etc. The purpose of this grouping was to facilitate the recording of the residents of New York State by birthplace. If it was desired to know

the names of all persons who were born in the countries allied with Germany, they could be obtained under the numbers 30 to 36, or if it seemed advisable to obtain the names of all the young unmarried men born in England, Ireland, Wales, Scotland, Canada and Newfoundland, Australia, New Zealand, South Africa, India and Egypt, it was only necessary to obtain the cards with code numbered 03 to 09 inclusive.

The code for foreign languages was: 1, French; 2, German; 3, French and German; 4, Spanish; 5, Italian; 6, Russian; 7, Japanese; 8, all other languages except English.

Occupation

At the time the census was planned there seemed to be five categories of occupation which should be kept separate:

1. Farmers, stock raisers, millers, fishermen and others who were necessary to the food supply of the country.

2. Federal and State employees who were exempt from military service and navy yard, arsenal, armory, shipbuilding and other employees who should not be disturbed in their work. Another group of the same kind were the men engaged in the extraction of the minerals from the earth, such as iron, copper, lead and zinc; also the agricultural machinery makers whose work was so necessary in the feeding of the world.

3. Men who were required for the army, such as bakers, horseshoers, cooks, hostlers, harness makers and tent makers.

4. Employees of factories whose work was *likely* to be of value to the prosecution of the war and the feeding of the people.

5. Those whose occupations were such as could be filled by others and were not essential to the country during war time.

A code was prepared which covered the service in the Regular Army, Navy, Marine corps, National Guard (showing the particular branch of service, whether infantry, cavalry, engineer corps, ambulance corps, veterinary corps, etc.), and arrangements were also made under this particular heading to show whether or not these men had served in foreign countries. Their names were kept in such a way that they were readily available. The code also covered training at school, college, camp or on cruise. As it was also desired to know which of the residents had served in foreign countries arrangements were made whereby these cards with this information might very rapidly be separated.

Organization of force

The arduous and important work of getting a force to code the information called for on the blanks, to perforate the cards and to attend to the sorting and tabulation was under the charge of Captain Leo H. McCall. On account of the large number of cases, about 5,600,000, and the speed with which the work had to be completed, it was necessary to engage a large force of 750 to 800 clerks. The work of engaging the rooms, buying the necessary supplies, engaging the clerical help was done by Captain McCall, with the assistance of E. D. Murphy, Henry Brown, W. Rohlffs, and Edmund Mimne, all of the staff of the New York Life Insurance Company. The work of training the clerks in the use of the codes and of carrying on the sorting and tabulating was under the charge of William Macfarlane and J. M. Gaines. The complexity of this work cannot be realized without a knowledge of the difficulties, especially with regard to the occupations.

It had been the intention to ask the various companies in New York which used electrical tabulating devices to loan the services of their clerks to the State. While a number of them agreed to do this, the greater proportion of the employers were so busy that it was impossible to carry on the work by volunteer force.

Medical census

Under the direction of Dr. Karl Connell a separate census of physicians and surgeons of the State of New York was made. The work of tabulation was done by the clerical force of the Bureau, the technical part of the work being under the expert guidance of Mr. William Macfarlane.

The work of the Bureau has demonstrated that a very large volume of cases could be handled expeditiously when plans are carefully laid at the beginning. It has shown that the modern method of compilation and tabulation is superior to any of the old methods, especially when there are many subdivisions to be made. It has also proved the necessity for such tabulation during war times, as the Bureau was able to give considerable information of value to many departments of the State and the Federal government for war uses.

ARTHUR HUNTER,
Actuary.

III. THE PROBLEM OF THE STATE

The original legal authority for the taking of the New York Military Census and Inventory is contained in chapter 103 of the Laws of 1917, which became a law on March 29, 1917. In this it was provided that "the Governor is hereby authorized to cause a census and inventory of resources of the State, available for use in the event of war, to be taken forthwith; and the information thereby secured shall be placed at the service of both the State and Federal governments." Supplementary legislation was passed on May 7th in chapter 409 of the Laws of 1917, authorizing the Governor to prescribe the questions which might be asked concerning military resources and to regulate in a general way the manner in which the census should be taken, and also providing for the appointment of a Director of Census in each county outside the city of New York and a Director of Census for Greater New York. The Governor also made use of the provisions of the Military Law (Consol. Laws, chap. 36, § 2), for ordering an enrollment to be made of all persons liable to service in the State militia, simultaneously with the taking of the census and inventory.

Proclamation of the governor

Acting under authority conferred by the above acts, the Governor, by his proclamation of June 6, 1917, designated June 11 to June 25, 1917, as the period during which the census and inventory should be taken and the enrollment should be made. The proclamation was printed on posters and wide publicity was given to it by the press. Besides being printed in English, the posters were available in French, Yiddish, Hungarian, Italian, German, Polish, Russian, Greek, Slavic, Swedish and Spanish. Counties having a large foreign population were supplied with foreign posters accordingly. The proclamation also defined the persons who should be required to register under the census and enroll for the purposes of the militia, prescribed that the census forms as approved by the Governor should be filled in and signed, contained provisions covering persons who through sickness or absence could not register in the regular way, and called attention to the penalties set by law for those who should refuse

or neglect to register. On June 8th a set of regulations was approved by the Governor regarding the procedure to be followed in case it became necessary to enforce compliance with the law.

The volunteers

Partly for financial reasons and partly because it was felt that the enumeration of a free people by themselves should be done as much as possible by volunteer workers, it was decided to appeal to the people of the State to offer their services for this patriotic work which would be of such great value to the country and the State in the present emergency. The response was spontaneous and enthusiastic. Approximately 180,000 people of both sexes, of all political parties and of all stations in life, offered their time and services for periods ranging from a few hours to several weeks. The results accomplished constitute the highest tribute to the patriotism and the intelligence of our population. In appreciation of the valuable services rendered, a certificate of thanks, bearing the State seal and signed by the Governor, was issued to each of these volunteers. Too much cannot be said in praise of the enthusiastic support of the women of the State, whose efficient work and untiring efforts were, to a very large extent, responsible for the successful completion of the census. Reports from all over the State were unanimous in the praise of their work.

The method of taking the census and inventory

In preparing the plans for the taking of the census it was decided to decentralize the work as much as possible in order to give the organization the necessary elasticity to conform to the local conditions prevailing in various parts of the State. The counties were, therefore, chosen as the units, except in the case of the five counties forming Greater New York, which were considered as one unit. The Home Defense Committees, which had recently been organized in every county, were charged with the duty of providing for the taking of the census, while in New York city the work was assumed by the Mayor's Committee on National Defense through the agency of the Bureau for Municipal Research. On May 7th, the Legislature passed an additional law (chap. 409, Laws of 1917), supplementing chapter 103, and providing for the appointment of a director of census in each county outside of the city of New York and a director of census for Greater New York, and of assistants to such directors, under

whom the immediate direction of the census and inventory was established and in whose hands were placed certain powers to enforce compliance with the census laws. The powers of these directors were, nevertheless, stated to be subject to the control of the Governor or such military authority of the State as he should designate. These directors of census were appointed by the Governor upon the recommendation of the respective Home Defense Committees, and their oaths of office were filed in the office of the Secretary of State. In connection with the enrollment under the Military Law, the directors of census were also appointed as the enrollment officers provided for in the New York State Military Law, and as such had charge of the enrollment. The census agents who were charged with the actual taking of the census were appointed by the Home Defense Committees, and each was furnished by the Census Bureau with a small metal shield.

At a meeting of representatives of the Home Defense Committees from all over the State, held in Albany in the early part of April, the reasons for the taking of the census were explained and its purpose and uses were outlined. The regulations and instructions of the Military Census Bureau (that is to say, the State headquarters at Albany), were thereafter communicated through extensive correspondence to county headquarters and and by them to their smallest subdivisions. A large number of county representatives called from time to time at the Albany office for a discussion of the various problems which continually developed, and these personal interviews proved so valuable that it was decided to hold a general meeting for a final discussion of the rules and regulations, and particularly with regard to the legal aspects of the census. This general meeting was held June 1, 1917, in Albany.

While the Military Census Bureau issued the necessary regulations and instructions to insure uniformity of results, the widest latitude was given the local authorities in the selection of the methods to be used and the means to be employed for the taking of the Census. The City of New York, with more than 50 per cent: of the population of the State, with its large foreign population and congested districts, presented the most complicated sitution. The Bureau for Municipal Research of this city decided to take the Census by means of registration depots, and in this connection arranged that residents of the city could register in any

one of these depots. This arrangement, which was adopted as a convenience to the public, resulted in a certain amount of confusion during the first few days of registration, but thanks to the well planned local organization these difficulties were soon overcome, and the results obtained in New York City greatly exceeded the expectations of the Census Bureau. In the other parts of the State the counties adopted either the house-to-house canvass or the registration depots, as seemed most desirable in view of local conditions. In some counties a combination of the two methods was used.

Expenses

The actual taking of the Census involved no expense to the State outside of printing, shipping expenses, postage and the expenses coincident with the maintenance of an office force at State headquarters in Albany. The abstracting of the information contained in the answers on the 5,600,000 signed census forms and the preparation of a record which should be permanent and easily available for the benefit of the State and the Nation, involved, however, a large expenditure, chiefly for clerical help. The expenses incurred by the county organizations for rent, postage, traveling expenses and a certain amount of clerical labor were borne by the counties, and varied from a few hundred dollars to very considerable sums, in accordance with the size of the respective counties and the number of inhabitants. Under the provisions of chapter 525 of the Laws of 1917, the county supervisors were authorized to appropriate out of county funds such sums as were considered necessary to defray the disbursements of the county's Home Defense Committee.

Number of people registered

Estimates prepared by the Military Census Bureau regarding the expected registration in each county were based on the State Census of 1915, plus an estimated increase in the population of 3 per cent. Figures supplied by the Federal Census Bureau in Washington and the Actuarial Society of America showed that approximately 56 per cent. of the total population were between the ages of 16 and 50 years, inclusive, the age group adopted as the basis of the census. The results obtained showed that during the last two years the drift of the population from the rural districts to cities had been in full swing, and, while the results in county districts fell below the estimates, the cities in practically

every case exceeded the estimated figures, and the total registration for the State as a whole slightly exceeded the estimate. The total number of persons registered exceeded 5,600,000.

The law provided a penalty of not more than six months' imprisonment for each refusal to answer the questions contained on the Census forms, or for failure to answer them fully, truthfully and without equivocation. It is a remarkable fact that, with a total registration of over 5,600,000 persons, only one conviction for refusal to comply with the Census Laws was reported.

Military enrollment

To take advantage of the machinery created for taking the census, the Governor ordered that a simultaneous enrollment be made of all persons liable to service in the State Militia, under the power conferred on him by section 2 of the State Military Law.

Under the New York Constitution (article XI, § 1) "all able-bodied male citizens between the ages of 18 and 45 years, who are residents of the State, shall constitute the Militia, subject, however, to such exemptions as are now, or may be hereafter created by the laws of the United States, or by the Legislature of this State." Prior to the 24th of May, 1917, the State Military Law (Consol. Laws, chap. 36, § 1), provided that "all able-bodied male citizens, between the ages of 18 and 45 years, who are residents of this State, shall constitute the Militia," subject to certain specific exemptions given in detail. On that date, however, the Military Law as amended to provide (§ 1) that "the Militia of the State shall consist of that part of the militia of the United States resident within the State." The law further provides (§ 2) that, whenever the Governor shall deem it necessary, he may order an enrollment to be made of all persons liable to service in the militia and further provides that, in connection with enrollment, every person enrolled be served with a notice showing that he has been duly enrolled in the Militia of the State. In this enrollment, as in the Census and Inventory, the county was the unit, and the Director of Census of the county was also the county enrollment officer. Pursuant to the requirements of the law, a list was compiled (one original and four copies) of all persons so enrolled, containing their full name and residence, their age, occupation and previous or existing military or naval service. The original of this list was to be forwarded to the Adjutant-General of the State,

two copies were delivered to the county clerks, one copy retained by the Enrollment Officer, and the remaining copy was subdivided as to cities and towns; and there was sent to each city or town clerk in each county the section of this copy of the list showing the persons residing in such city or town. Each person so enrolled was served with an enrollment notice at the time of making the enrollment.

Under the Military Law (§ 3), persons enrolled who desire to claim exemption from service are required to present their claims in affidavit form to their county clerk, within fifteen days after receiving their enrollment notice, and the latter are required to grant exemptions if such persons are entitled to exemption according to law. The county clerks are required to transmit to the Adjutant-General of the State one of the enrollment lists received by them, as above stated, corrected to show who are exempt. The law provides (§ 3) that the persons thus enrolled and not exempted "shall constitute the Militia of the State." As to who are properly exempt under the law, there was considerable question. Prior to the amendment of May 24, 1917, the Military Law (§ 1) had specified the classes of persons who could claim exemption. With the amendment of that section referred to above, however, whereby the Militia of the State was stated to be that part of the Militia of the United States resident within the State, a different standard was introduced. In view of the complication of the situation, the matter was submitted to the Attorney-General of the State. He ruled that, in view of the recent co-ordination of the State Military Law with the National Defense Act, it was not necessary for anyone to claim exemption within the fifteen day period. The Attorney-General also approved the regulations for county clerks prepared by the bureau in connection with their duties under the New York State Military Law.

The serving of the militia enrollment notice and the compilation of the enrollment lists as provided by law, involved a great amount of work. The expenditure for clerical work in this connection was borne by the counties.

Medical census

In connection with the Census, a medical census was taken by forwarding through the mails to all physicians in the State a special census form, to be filled out and returned to the tabulating office of the Military Census Bureau for tabulation.

Forms used

The Military Census Bureau prepared all the various forms which were used in connection with the Census, except the Census forms — the sets of questions to be answered — which were compiled and approved by a committee of experts. In addition to these forms, the Census Bureau prepared detailed instructions with regard to the duties and responsibilities of the Home Defense Committees and the directors of census, containing suggestions and recommendations for the division of the territory, the organization of the census forces and their proper instruction. They also covered the distribution of census supplies, the examination and marking of the filled-out census forms and their shipment to the tabulating office. The Census Bureau also provided in book form "Instructions for Census Agents," defining their duties and powers and containing very complete and explicit instructions for answering each question on the census form. These latter instructions were also issued in pamphlet form and were used extensively in a number of counties.

Census supplies were shipped to county headquarters for distribution within the county in accordance with the estimated registration plus an allowance of between 20 per cent. and 30 per cent. for wastage. It developed, however, that the wastage in practically every county exceeded this allowance, which necessitated the printing and shipping of additional census supplies. This brought the total number of forms printed up to about 30,000,000.

H. B. TOLEN,

Assistant Director in Charge of Albany Office.

IV. THE PROBLEM OF NEW YORK CITY

The population of the City of New York approximates very closely to 5,500,000 persons. The total area of the city is 315 square miles. It is divided into five boroughs which are essentially different in their characteristics, occupations and population. The alien population is probably 2,000,000 persons, and those who have but a limited acquaintance with the English language number into the hundreds of thousands.

This gives but a bare outline of the size of the task imposed upon those in charge in New York City in attempting to register all persons between the ages of 16 and 50 in the State Military Census. Dozens of other factors entered into the situation. Practically every nation in the world is represented in the population of the city and every language is spoken. Many thousands of the workers in the borough of Manhattan reside in other boroughs and can only be found at their homes in the night time. Scores of thousands work at night in connection with rapid transit systems, police duties, newspapers, as janitors of office buildings, and in a score of other occupations, and they are not home in the night time but only in the day time. A large percentage of the homes, particularly in Manhattan and the Bronx, are in apartment houses and in tenement houses four, five and six stories high. Thousands of persons reside in hotels. Other thousands make their living as traveling salesmen, actors on the road, sailors on ocean and inland lines, and workers in railway transportation, and are absent from the city for days and weeks at a time. Many hundreds of families of the more well-to-do classes, while technically residents of the city, occupy suburban country houses in the early spring and summer months, leaving only a caretaker in their New York City homes.

It was realized from the start that the problem of taking a complete census of the residents of the City of New York under these conditions was essentially different from that of making a house-to-house canvass of a country town or county, or even a small city. The information required in the military census and inventory had to be obtained at first hand directly from the individuals enumerated and could not be given by a caretaker or a housewife.

A cursory study of the situation led to the realization that a house-to-house canvass in New York City such as was taken in other parts of the State would be a total failure, and other means had to be devised.

Governor and Legislature provide for central control

Appreciating these difficulties, Governor Whitman, the late Captain George Garr Henry, State Director of the Census, and the Legislature made provision for a centralized control over the five counties comprising the City of New York. One director was appointed for each of the other counties in the State, but New York City was considered as a whole. Mr. Willard Straight, at that time chairman of the Mayor's Committee on National Defense, and Mr. E. P. Goodrich, director of the Bureau of Municipal Research took up the matters involved as affecting the interests of the residents of the city of New York with the State officials at Albany.

The upshot of the conference was that the mayor's committee and the director appointed for New York City were given considerable latitude in arranging for the census taking, and a system considerably different from that prevailing throughout the rest of the State was determined upon for the City of New York.

The convenience of the public an important consideration

Those in charge of the work in New York City believed that the all-important object of the law providing for the military census and inventory was to obtain information. Although severe penalties were provided for a failure to comply with the law, and broad powers were given to the Director to deal with recalcitrant persons even to the extent of summarily committing them to jail for refusal to answer questions, it was felt that the public, particularly the large alien population which is inclined to view any form of registration with apprehension, should be encouraged and exhorted to comply with the law rather than threatened with punishment. It was agreed that every facility should be afforded the persons affected by the law to comply with it in the easiest manner and with the least possible interference with their ordinary occupations and vocations.

This policy of making it as easy as possible for the residents of New York City to comply with the law was successful beyond expectations. The total registration at the close of the census

period was 3,280,870, which exceeded all the estimates. It was more than 300,000 above the highest original estimate that was made before the census was taken.

Fifty thousand volunteer workers required

The work was performed entirely by volunteers, more than 50,000 people in all devoting time and energy to different parts of the task. Before the census began it was freely prophesied in some quarters that it would be a failure and that such a volunteer army could not be managed and could not work with even approximate efficiency. The prophets were routed by the zeal, earnestness and the intelligence of those who volunteered and carried through the undertaking. In the description of the organization that follows the limits of space forbid mention of all the groups of men and women who co-operated. Merely to list the organizations would require several pages. A recital of what each one did could not be attempted. Only a broad outline can be given, supplemented by typical details of operation which may prove of assistance to other states that contemplate engaging in similar service.

An organization of organizations

New York City is one of the most thoroughly organized communities in the world. There are great organizations of women, such as the various church leagues, the school teachers, the Suffrage party, and the new National League for Woman's Service with its affiliated bodies. There are associations of business and professional men, such as the engineers, the chambers of commerce, and various trade and fraternal organizations, the civic clubs and church societies. The girls and boys through the public schools and high schools form a fairly cohesive body, while there are also the Boy Scout and Campfire Girls organizations, available for patriotic service. The city employees form a large and intelligent group that may be employed for work of a public nature. Every church is a focal point for a rally to service for the country and state. The alien population is also organized from immigrant societies up to an association of foreign language newspapers. The homeless and totally unorganized strata of society are reached through the charitable organizations, the settlements, the Seamen's Institute and kindred bodies.

Such bodies of people, acquainted with one another, having their own recognized leaders with their own division of functions and a sense of group responsibility, afford a substantial foundation

for an emergency organization in case of public need. This has been proved in other communities at critical times, and is now being given broad appplication by the United States government through its utilization of trade and business associations in supplementing the central government agencies in the work of the war. But it has never been given such intensified application and has never produced more significant results than in the taking of the State census in the City of New York.

Limited time for training recruits

In this case a period of thirteen days had been set for obtaining exact and detailed information from more than 3,000,000 people of both sexes and of all nations, thousands of whom could not understand the question blanks that were printed in the English language, and thousands of whom could not even sign their names in English.

The first task, therefore, was to arouse the interest of these organizations and to obtain their pledges of co-operation. In this, the Mayor's Committee on National Defense, which was created by Mayor Mitchel expressly to meet the unforeseen developments that would result from a state of war, and the Bureau of Municipal Research with a large staff of accountants, investigators and engineers devoted to public service worked hand in hand. The headquarters for the work were located in the offices of the Bureau of Municipal Research which is adjacent to the City Hall and in the center of transit lines to all parts of the city. The work was planned at headquarters and the various group leaders met there for their conferences.

Outline of general census organization created in New York City

The trustees of the Bureau of Municipal Research turned over without restriction the entire plant and organization of the bureau of the Training School for Public Service to the city director for the census work. Thus, the director had right at hand a large office with the latest modern equipment and facilities, and a staff of experienced specialists in public service, including administrators, investigators, engineers, institution managers, accountants, and attorneys, all of whom were familiar with conditions in New York city and with the various divisions of the government. In addition, there was a secretarial force composed of students in the Training School for Public Service who were in training for positions such as secretaries of chambers of commerce, civic

organizations and universities. There was also a well-equipped stenographic division.

The staff of the Bureau of Municipal Research together with a number of representatives from other co-operating organizations, such as the public schools, the Suffrage party, the city employees, the engineering societies, and civic organizations, were assigned to the direction of the various divisions that were created by the Director to meet the requirements of the situation.

The public school system was regarded as the most important organization in the work. Every public school in the city was made a public registration district. The teachers voted unanimously to attend at these stations, and so a great organization was ready at hand. The people all knew where the school houses were located and that was another advantage.

The organization that was created to supplement the public school system was depicted graphically on a chart.

The smallest unit appearing on the chart is an assembly district. The practical unit, of which the assembly district was composed, was the election district. While the boundary lines of these small districts were not followed precisely, effort was made to approximate their numbers. Each election district unit or place of registration was manned by the registrars who were under the direction of a district captain. The district captains, in turn, reported to the assembly district supervisors.

Two deputy directors were created as chief aides to the director. One of these, Mrs. F. Louis Slade, assigned the co-operating women's organizations to their tasks. One entire borough, for example, was under the supervision of a woman.

A borough registration division was created for the five boroughs and each was placed in charge of one or more persons. The assembly district lines were followed in the division of responsibility, and supervisors were assigned for each assembly district. Some of the larger districts had more than one supervisor.

The organization of the Manhattan districts was directly in charge of one of the staff members of the Bureau of Municipal Research. The organization of the Brooklyn districts was in charge of the secretary of the Brooklyn Civic Club assisted by a representative of the women's organizations and a representative of the bureau. A similar plan to that followed in Brooklyn was adopted in the organization of Queens, where the secretary of the Queens Chamber of Commerce assisted by a representative of the

bureau was the head. The Richmond organization was headed entirely by women assisted by a representative of the bureau.

In order to relieve the pressure on the public registration stations, a special registration division was created. The work of this division covered large groups of residents who could be reached easily through their occupations or other connections and activities. Seven subdivisions were made: one for employees of New York city, one for employees in large industrial plants, and for guests of hotels and inmates of institutions, one for Catholic parochial schools and private schools, one for foreign clubs and societies, one for public schools and colleges, one for the passengers on Staten Island ferry boats (which afford the only means of access to Richmond borough), and one for the department stores which included the thousands of employees on one hand and the women shoppers on the other.

The men in charge of these seven subdivisions in the special registration division organized the various units, obtained registration places for the different classes of people and were held responsible throughout the taking of the census for the delivery of supplies and the receipt of returns, as well as for the many questions which arose in taking the census among the industrial workers and the institutions, clubs, hotels, schools and city employees.

A central office division was established with three subdivisions — the filing division, the executive headquarters, and the reserve.

Each borough had its own filing subdivision for returns with the exception of Richmond borough which was consolidated with Manhattan. These subdivisions were directly under the central office which maintained a busy staff of secretaries and assistant secretaries who kept in constant touch with the other branches. The "reserve" division contained six highly important units, namely, equipment, transportation, registration places, purchasing, mapping and tabulating, and reserve personnel or recruiting. These worked closely with one another and with all the other activities throughout the city, and as the census developed, the transportation, equipment and purchasing units were practically merged into one group that was intimately connected with the storekeeping unit.

Location of registration places

Next to the creation of the working organization, the location of registration places was considered to be of the utmost importance.

Owing to the uncertainty of securing a sufficient number of registration places, it was deemed best to start the work of securing them at the earliest moment. This meant that places had to be secured before either the appointment of supervisors or the marshalling of the volunteer census takers. The work throughout the city, therefore, was conducted from headquarters until the supervisors were appointed to take charge of specific districts.

The estimate made at the beginning calling for at least one, and in some instances two, registration places for each of the 2,179 election districts, that is, one for each group of not more than 400 male voters, proved to be substantially correct.

The work of securing registration places was performed through various agencies. In order to conduct this work systematically, and what was more important, to avoid misunderstanding as to the terms of acceptance of an offer for the use of a place, printed forms were furnished to all solicitors and it was required that the offer of a place be signed by a responsible party. To facilitate the work all solicitors were furnished with a set of mimeographed instructions concerning their work and registration places.

How the use of places was obtained

Places were secured through the following agencies:

1. Direct solicitation in the field through volunteers working from headquarters.

   a. Citizen volunteers.

   b. Students from institutions of learning in the city, such as City College, Columbia University, and the New York University. These institutions furnished over 200 volunteers who did a great part of the preliminary work prior to the actual taking of the census. Owing to the fact that they received scholastic credit for this work, and in some instances were excused from their examinations, it was possible to keep a complete check on them.

   c. Volunteers from co-operating organizations.

2. Co-operation of the municipal departments.

   a. The Board of Education. The Board of Education threw open 450 schools which proved to be the backbone of the whole system.

   b. Street cleaning department stations.

   c. All libraries and their branches.

   d. Miscellaneous department buildings.

3. Church buildings, Sunday schools, institutions.

4. Circular letters addressed to real estate boards, owners of chains of stores, real estate agents, large estates, settlements, etc.

5. Personal requests to large department stores.

Maps at headquarters showed 3,000 places at a glance

In the main office was maintained a set of maps of every assembly district in the city. These maps were kept posted to date showing:

1. Location and character of the registration places.

2. Whether approved and accepted by the staff member or supervisor making the final inspection.

Upon final acceptance a person offering to furnish facilities was notified by mail.

Over 3,600 places of registration of various kinds were offered for the purpose of taking the census, of which 3,000 were accepted and actually used. In many instances, the persons volunteering the place were induced to render some personal service in connection with the census, resulting in that station being largely manned and cared for by the owner himself.

In a few instances, where it was necessary to use vacant stores or vacant private houses, they were furnished by borrowing tables and chairs from the board of elections.

Owing to their use by the Federal census, the State census authorities were requested not to approach the owners of places which had proviously been used as registration places for general elections.

It was not considered advisable to use the police stations as places of registration, owing to the necessity of registering women and the probability of those registering or offering their services being thrown into contact with criminals or disorderly persons. Fire houses were excluded for the reason that it might interfere with the performance of the firemen's duties.

Donations totalling 40,000 square feet of space for the borough headquarters were obtained from owners of large buildings.

A campaign of publicity to win recruits for volunteer work

The publicity work had a two-fold purpose; first, to interest large numbers of patriotic persons, employers and property owners to such a degree that they would volunteer to assist in the census taking, and second, to inform and instruct the public in the need

for the census. Articles were published in the daily and Sunday newspapers of New York City beginning as soon as the first draft of the census questions which were to be asked of every man and woman of the State had been prepared. The majority of these articles were issued from the office of the State Division of Information in Albany. The newspaper publishers realized that the census was a matter which affected practically every reader, and they devoted considerable space to explanations by the State authorities and the local officials which accompanied the questions to be asked. Some of the newspapers, in May, even printed what practically amounted to facsimiles of the census blanks.

This was all educational publicity which aroused considerable interest and discussion and acquainted the public generally with the fact that the State would soon require a great deal of detailed information from its residents. Every article and interview that was sent out at this time both from Albany and from the New York city headquarters emphasized the need for volunteer workers. The opportunity to serve the State and Nation in the time of war was presented attractively and specific mention was made of the need for interpreters and registrars, with a promise that they would receive a testimonial from the State and the thanks of Governor Whitman in the form of a certificate.

Co-operation of foreign language newspapers obtained

The alien residents were not overlooked in this preliminary publicity campaign. The editors of more than fifty foreign language newspapers of the city were invited to a meeting which was presided over by Mr. Louis Hammerling, President of the American Association of Foreign Language Newspaper Publishers. The need for the census was explained to them, the law was read and the entire plan of the work was discussed. These foreign language newspaper publishers unanimously pledged themselves to do all in their power to aid in taking the census and appointed a committee including one Swedish publisher, one Jewish publisher and one Polish publisher to aid the military census work and co-operate with it to the fullest extent. In this connection it should be said that the assistance given by these publishers in explaining to their readers the objects of the census, reassuring those who were extremely timid as a result of police inquisitions in their native lands, and obtaining recruits was most effective. This was particularly the case on the crowded east side and in the "Little Italys," "Little Hungarys," "Little

Armenias," "Chinatown," and similar colonies throughout Greater New York. The questions to be asked were translated into the language of the readers of each newspaper, and explanations were added. The result was to make the task immeasurably simpler. Some of the editors went so far as to devote the entire front page of an issue to this campaign. In many instances the papers published a list of the registration stations in the city at which the readers might register under the auspices of those who spoke their respective languages. A large proportion of the newspapers themselves opened up registration stations in their own offices and were instrumental in establishing additional stations where the language of their readers would be spoken and understood. Three of the largest foreign newspapers in the city assisted materially in the program of educating the foreigners with respect to the census by distributing handbills and placards in foreign languages by means of their delivery service in those parts of the city where the need was greatest.

Twelve hundred volunteer interpreters listed

At the outset it was planned to facilitate the registration of foreigners by establishing a large list of volunteer interpreters. In fact this plan was carried out in part and more than 1,200 interpreters for more than 35 different languages gave pledges of assistance. These interpreters were assigned either on requisition by the district supervisors or in accordance with the needs of particular districts, based on the general knowledge respecting local conditions and the presence of foreign inhabitants in particular districts. It was felt, however, that although the assignment of this interpreter service from the central office was most effective in serving certain portions of the city, yet it was far from sufficient.

"Foreign stations" established

The problem of securing additional interpreter service was met in a more practical and happy way. The solution of this problem was effected by the very close and active co-operation on the part of foreign societies, associations, lodges, churches and influential persons intimately connected with certain groups of foreigners in the city. The heads of these organizations were called into conference with the member of the staff in charge of this work. Each organization was asked to designate a responsible representative who would co-operate with the central office in the establishment

of "foreign stations." It was their task not only to provide places conveniently located with respect to the homes of their people, but also to man such stations and maintain constant service. The instructions to the captains and the registrars of these stations were given in most part through the district supervisors of the districts in which the particular foreign stations were located. In some cases the instructions came direct from the central office. This was true with respect to two Chinese stations on the east side. In some instances a representative of the census staff attended the meetings of the societies and addressed the foreign groups.

It was found that on Sunday certain groups of the foreign population were in the habit of congregating in their churches, clubs, etc. For the convenience of these people Sunday registration was allowed. In some cases it was only possible to have the foreign stations open from 7 to 11 in the evenings, as it was only at this time that volunteers could be secured, or that the persons of the particular foreign group had free time during which they might be registered. This was true particularly in the case of the Finnish stations.

Excellent returns from "foreign stations"

In all, there were 25 foreign agencies which were instrumental in the establishment and maintenance of approximately 250 foreign stations. An inspection of the blanks which came in from these stations proved conclusively that these volunteers had regarded their work as a serious undertaking and had been most conscientious in seeing to it that all of the provisions of the law and the rules and regulations of the census were carried out to the letter. It was undoubtedly by means of this plan that non-English-speaking foreigners could with ease and without embarrassment register themselves in accordance with the State Military Census Law, and that the foreign societies not only were of great assistance to members of their race or nationality, but also rendered a vital service to the State and nation.

Instructing the army of volunteers

As soon as the overhead organization was completed and the volunteer workers were listed, a rapid fire campaign to instruct the supervisors and registrars was inaugurated. Men and women from headquarters who had been thoroughly instructed were provided with greatly enlarged copies of the forms, with books of instruction supplied by the State and mimeographed sets of

instructions applying especially to New York city. Meetings of workers were called and announcement was made by mail and newspaper notices. The meetings were held in theaters and public halls, but principally in the great auditoriums of the public schools. The workers were invited to raise all possible questions that occurred to them and where the instructor could not answer a question which raised a new point communication was had immediately with headquarters. The instructors were provided with automobiles procured through the transportation division of the Mayor's Committee on National Defense and they made whirlwind tours from meeting to meeting, covering as many as seven meetings in an afternoon and evening. In this way thousands of registrars, as well as all of the district supervisors, were given the benefit of complete instruction in how to take the census and how to answer the questions on the blank. The men and women who attended these meetings, in turn instructed their assistants at the various stations, and much trouble was thereby avoided in advance.

Effective assistance from the newspapers

As the first day of the taking of the census approached, the great metropolitan dailies began to devote an increasing amount of space to it. Letters were sent to the publishers and personal calls were made on a number of editors to obtain their co-operation. It was pointed out that practically every reader of a newspaper would be directly affected by the census, and that the papers could be of great assistance to their readers by explaining many points in advance. Material for full page articles was supplied to all of the Sunday morning newspapers and for the one Sunday afternoon paper printed in New York city.

The department stores which had, almost without exception, agreed to act as registration places were urged to advertise that fact in the newspapers on the Saturday and Sunday preceding the census. They did so. One department store made a special feature of the census for several days, printing a facsimile of the question blank for women and suggesting that their patrons fill the answers in on the advertisement in lead pencil and bring them to the store in order to save time in filling out the official blank.

The newspapers on the day preceding and on the first morning of the census carried a very extensive story, special emphasis being laid upon instructions to readers, which were set up in "boxes" and contained warnings to comply with the law under penalty

of six months' imprisonment. People were urged to register at the first opportunity as a patriotic duty.

To use an advertising phrase, the State Military Census and Inventory on the morning of June 11th was the dominant feature of the day's local news. The result of this publicity was almost overwhelming. On Monday morning when the registration places opened it appeared as if every one in New York city had determined to register on the first day. Subsequent checking of the returns indicated that on Monday and Tuesday, the first and second days of the thirteen-day period allotted for the taking of the census, more than one million people registered.

The problem of the distribution of the census blanks

The problem of the distribution of supplies was one of the most serious with which the census organization had to deal. Because of the method adopted in New York city to permit registrants to register at any registration station within the city limits, it was impossible to tell in advance the number of forms that would be required at any one place. This complicated the problem of distribution exceedingly.

A central storehouse for the five boroughs, which had been loaned by the owners of a warehouse situated in the heart of Manhattan, was established. The storehouse was equipped with long tables for sorting and wide aisle space was allowed between the different sections.

In each of the five boroughs, the borough headquarters and the borough filing division were pressed in the service as auxiliary distribution centers as soon as the forms were received, sorted and sent out from the central storehouse.

With more than 3,000 registration places, it was realized that the means of transportation through volunteer automobile service was inadequate to afford deliveries to each station. The supervisors of the Assembly districts were required to receive the supplies for their districts and were held responsible for the delivery to the registration places under their supervision.

As might have been expected, some of the outlying registration places were not fully supplied when the stations opened on the first day. Special deliveries were made by automobile. The great express companies loaned their traffic experts and special routes were made for delivery by express.

A rather unlooked for development was that the people did not at first register at the public schools in the numbers that had

been anticipated. The surge of the population was to the stores and other stations, despite the fact that the public schools had been advertised through all the advance publicity, while but few of the other stations had been listed in the newspapers. It would have cost upwards of $5,000 to have listed the places for only one day in the newspapers at advertising rates.

The stock of blank forms was rapidly exhausted in a number of stations on the first day. It was immediately decided to put into effect a system of redistribution, collecting the supplies from one station and rushing them to another. The supply of automobiles which had not been quite adequate to effect the original distribution, was insufficient to meet the peak load of demand which arose on the first two days.

Important lesson learned from experience in distribution

In the light of actual experience developed during the two weeks of the census-taking, it is plain that a larger margin should have been allowed in the original allotment of forms. A margin of almost 100 per cent more than the estimated population would not have been too great. Without a sufficient quantity of forms and other census material, the volunteer worker is placed under a severe handicap. The waste of forms, due to inexperienced workers in an unexpected rush, is naturally very large. Thousands of people, it was found, used up two forms before they were satisfied with the answers they made to the questions. In such a situation, a lack of the necessary equipment or even an apparent shortage, produces confusion. Another lesson drawn from this experience is that every kind of material supplies should be delivered to the central storehouse far enough in advance to enable the local authorities to make up the shipments for each station and to effect the distribution, so that every place will be fully equipped for the work before it begins.

In making the distribution a record was kept showing the number of forms delivered to each person and receipts for deliveries were obtained by the drivers. Learning of the reports of shortage in certain districts, alert supervisors and district captains were quick to put in requisitions for additional supplies for fear that they too would be overwhelmed by an unexpected rush and find themselves short. In so far as it was humanly possible, the storehouse forces watched for excessive requisitions and prevailed upon the applicants to accept only a reasonable amount.

Forms printed in New York city

Starting with a very close margin above the estimated needs, a shortage of forms rapidly developed in many sections of the city. It was realized at once that it would be better to have 100 per cent more printed matter than would be used, than to have 1 per cent less than was needed. With the consent and by the authority of the State officials, orders were placed with three local printing establishments — one located in the Bronx, one in Manhattan, and one in Brooklyn — to supply all the forms that might be legitimately called for. This auxiliary supply, coupled with the rush shipments from the State Printer at Albany, saved the situation. While at the conclusion of the census-taking several thousands of printed forms and cards of all kinds were left on hand and were cut up and sold as waste paper, the cost was relatively insignificant compared with the results obtained.

Co-operation of the public and parochial schools

The one organization that was deemed indispensable to the success of the work of the census was the Department of Education. The whole departmental machinery was put at the disposal of the city director in response to his request. All of the public schools were made public registration stations, practically without exception. The teachers were circularized, and almost 100 per cent of them volunteered for service as registrars. The janitors of the public schools, who afforded invaluable assistance, tendered their services in a body through their organization.

Each school was considered as a registration station, the captain of which was the principal or some one appointed by him. For instructing the teachers in the work that was to be done and for supervision the school districts were made the units. The twenty-three district superintendents acted as district supervisors. The entire force organized in this way included about 22,400 teachers. This force registered more than one million persons, practically one-third of the total registration in the city.

The teachers instructed their pupils to bring their parents to the schools for registration. When the parents could not speak the English language, the pupils acted as interpreters. In this way many parents who would probably have never entered the public school buildings were brought into direct contact with the teachers. This was considered to be of mutual benefit to both teachers and parents of school children.

The parochial schools of the Catholic church throughout the

city co-operated in almost the same way. The church authorities were first appealed to and they issued circular letters to the pastors of the parishes under their jurisdiction. Every parochial school was a public registration station and was manned by a corps of volunteers consisting of the teachers and active parishioners. The census was explained from the pulpit and the parishioners were urged to register at the earliest opportunity. The co-operation thus received was very helpful, and the effect of the interest of the clergy was very marked.

Political party machinery not generally employed

One of the most obvious forms of organization which was considered was that of the two great political parties in the city. These organizations are composed of units, beginning with the election districts which comprise only a square block or two, the election districts being a part of the Assembly district organization and the Assembly district organization in turn being the unit for the county organization in each of the five counties. It was at first thought possible to employ these organizations, and some conferences were held with this in view. The party leaders were quite willing to take over the task and it is probable that their organization would have performed most of the work in a highly satisfactory manner. Other considerations, however, outweighed the practical advantages of co-operation of these party organizations. It was felt that it would be better to conduct the census without any emphasis upon political district lines or political affiliations. In Queens borough the offers of assistance from the Republican and Democratic organizations were gladly accepted, but the men served as individuals and not as a part of the political machinery. This assistance was highly valuable and was given without regard to the advantage of either party.

Police department and Home Defense League in preliminary work

In previous census work it had been found very difficult to secure a complete return from a large number of residents because of their desire to remain unlisted on any government list. This applied in New York city to both aliens and many who might be put in the class of transients, since the latter had no regular lawful occupation and no fixed domicile. For the same reason those who were maintaining irregular establishments, living under assumed names and posing either as married or unmarried when the opposite was the case, had taken pains to avoid being counted

or enrolled in previous official lists. Apprehension was also felt lest a large number of alien enemies who were known to reside in the city should evade the requirements of the census law by a failure to register.

In order to meet this condition it was felt that the co-operation of the police department was required. Some sort of check had to be made of the census returns to make sure that they were complete. It was learned that the State of Connecticut had made a census and a study was made of the Connecticut system. It was found that the authorities of Connecticut relied upon lists of population, such as personal tax lists, school reports, city directories, telephone registers, and other compilations of that nature. A card index of the population of a community was prepared in advance, the community was divided into sections, and the cards relating to a specific section were used to check the individual forms returned for the census.

Many of the features of the Connecticut system would have been impractical in New York city. Existing lists and directories were admittedly far from complete and the very persons whom it was most desired to reach would not appear in these lists and directories at all.

A new system was devised. It was determined to make up a card index of the population of the city as far as it could be obtained by the regular police force and the members of the Home Defense League, which is a volunteer organization of citizens formed to supplement the police force during the period of the war and working under the direction of a special deputy police commissioner. The police department assigned patrolmen and Home Defense League members to each precinct to make a canvass of each street and house and to prepare what is called a "spot card" for each individual between the ages of 16 and 50 residing within the precinct. These cards were then forwarded through the offical channels of the police department to police headquarters and were then sent to the several borough census headquarters. In each borough headquarters the spot cards relating to that borough were placed in a file, arranged by streets. The cards for each street were arranged according to the house numbers. The odd numbers came first in consecutive order and the even numbers were then arranged in like manner. The boxes containing the cards for the various streets were then sorted alphabetically. Where a large number of people lived at a given address, such as

an apartment house, the spot cards were arranged in alphabetical order under the number of the house so as to be easily found.

The information on the "spot cards" was obtained for the entire city within a period of ten days immediately preceding the census. It was realized that not every person in the city would be met individually by a police officer in this preliminary census. The object was to obtain on the cards the names, addresses, age and sex of all persons living in the city in as short a time as practicable before the state census opened. The rate of change of residence in the population of the city is comparatively high from month to month. It was realized that a considerable part of the police census would be useless because of changes in residence unless it was taken as close to the State census as was practicable. The result showed that the first census was taken at the right time, because only a small percentage was found to have moved between the "spot card" census of the police and the opening of the State registration.

In many precincts the cards were first distributed to the janitors of apartment houses, the clerks of hotels, and the servants of families who were not at home when the officers called. A second trip was made in a day or two to collect the cards. In many cases the police officers gave the cards to janitors of apartment houses and clerks of hotels only as a last resort after they had gone through the buildings themselves to hand out the cards individually.

It was explained through the enumerators and the press that the spot card for any individual when filled out with the name, age, sex, etc., might be placed in a sealed envelope and left with the clerk of the hotel, the janitor, or delivered to the nearest police station house. Remarkably few cases of misunderstanding arose, although a number of people refused to return the census card containing the information to the police department, but insisted on sending it by mail to the Director of the Military Census. Several cases were subsequently discovered in which persons of both sexes had given an incorrect age on the spot card because they did not desire to reveal their correct ages to anyone in their immediate neighborhood.

The effect of this "spot card" enumeration was very marked. Many persons who would otherwise certainly have evaded the State military census completely were much upset to learn that the janitor of the apartment houses in which they lived, or some

other dweller in the house or in the neighborhood, had given their names to the police. Hundreds of these cases came to light during the taking of the Military census and scores of men and women called at the census headquarters to make confidential revelations concerning their status to the director. It is reported that on one block in a certain section six couples were married before registering all the details required on the census forms. A number of citizens who enjoy a relatively high standing in the community were very much perturbed by the census. They confessed to leading double lives and maintaining two domestic establishments. Many of these persons were registered by the city director, who assured them that the returns were confidential and could not be used in any proceeding against them on the general rule of law that what the State compels a person to disclose cannot be used as evidence against that person. The opinion of eminent attorneys and official prosecutors to this effect was obtained.

It was the intention to check the registration forms that were returned against the "spot card" census so that at the close of registration those who had neglected to register could be easily discovered and action brought against them to compel registration. This was done in certain sections, but was not attempted for the entire city because the actual returns on the registration forms far exceeded the population indicated by the "spot card" census.

The moral effect, however, of the police activity before the actual registration began was very noticeable. Thousands of people who might otherwise have evaded registration had no means of knowing whether their names had been turned in by the police through neighbors and janitors or not. They were afraid of prosecution and they registered.

The period of actual census-taking — June 11th to 25th

A few days before the time fixed by Governor Whitman's proclamation for taking the census, the director in charge of New York city issued a supplementary proclamation explaining the special requirements and features of the New York city work. This was printed on large cards and sent to every registration place. It was distributed also to large establishments and to several transit lines which posted the cards in conspicuous places. Large placards and posters containing the words "Register Here" and announcing the hours and days during which the stations were open were also distributed to the registration places to attract the attention of persons subject to the law.

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One of the first results of this distribution of posters, coupled with the newspaper notices, was to bring in a large number of callers to the headquarters who explained that they would be absent from the city and the State during the period of the census. They requested that they be allowed to register before leaving town. This led to a ruling from the State authorities that such persons would be allowed to register on Saturday and Sunday preceding the opening day. Several hundred persons availed themselves of that privilege, and a large room had to be set apart at the headquarters on Sunday manned by a force of volunteer workers to accommodate the rush of persons who were leaving town.

The rush of the population to register began early on Monday and continued unabated until late Monday night, some of the stations remaining open until 11 o'clock, in order not to turn away people who had been standing in line for an hour or more. The supervisors had been instructed to make reports of the number of persons registered in their districts at the close of the first day and of each succeeding day. Not all supervisors were able to make these reports, but on the basis of those received it was estimated on the following day that 300,000 persons had registered on Monday, June 11th. Subsequent analysis of the returns indicated that more than 500,000 persons had registered on the first day. Instead of falling off, the registration increased on the second day and the volunteer recruits, who had received their training under practical conditions on the first day, were able to handle the crowds more expeditiously. It was estimated from the day's reports that 500,000 persons had registered on Tuesday.

A serious shortage of blanks developed at many stations on the second day, and for a time it looked as if a large number of the stations would have to be ordered closed for a day or two until their needs could be supplied. Heavy shipments of blanks specially asked for by the New York city authorities arrived from Albany that night and, by all night work, these were distributed to the points where they were most needed. The local printing establishments were pressed into service on the third day and from that time on there was no general shortage in any section.

The rapid consumption of census forms

On the first two days the rapidity with which the forms were used up and disappeared seemed almost inexplicable. An analysis made in the light of the revised reports accounted, to a large

extent, for the apparent shortage of forms. They had been used up in registering more than a million people, that is, practically one-third of the total registration in the first two days.

Another factor that accounted for many thousands of blanks developed later. In possibly fifty per cent of the registration places the first comers, after registering for themselves, took home two or three blank forms for other members of their families to fill in at home. A husband who had stood in line for an hour awaiting his turn to be registered, wanted to save his wife from the same experience, if possible, and took one or two of the blanks for women away from the registration place. In this manner hundreds of thousands of blanks, which were later brought in and signed in the presence of the registrars, were carried away from the stations and this naturally caused a shortage in many sections. As soon as it was learned that the forms were being given out in this manner, strict orders were sent to all of the supervisors explicitly prohibiting the continuance of the practice and it ceased almost immediately.

By the latter part of the first week the census machinery was working smoothly throughout the city. No disorder was reported nor any number of serious cases of refusal to answer. The census headquarters was kept open until midnight every night and on Sunday, and six extra telephone trunk lines were used to their full capacity until after the registration stations had closed every night.

Close watch kept of number registering

The newspapers sent reporters every day to headquarters and to various registration stations for the morning and evening editions. To meet their demands for information as to the progress of the census day by day a tabulating division, composed of several clerks in charge of an accountant, was put to work. This division received daily reports on postal cards from the district supervisors and checked up the returns by telephone from districts that had not reported. As a result, the director was able to make an approximate daily estimate of the registration. It was realized that the average should be over 200,000 a day for fourteen days, if the estimated population was to be registered.

When the reports indicated that the registration was falling behind, renewed warnings were issued through the newspapers. Reports of an organized movement to encourage evasion of the

requirements of the law in the districts largely populated by members of the Socialist party caused an immediate concentration of publicity on those sections, which was ably carried out through the foreign language press, a Socialist daily, and various organizations which had large memberships in these sections. In order to accommodate many working people and orthodox Jews, a number of the registration stations in certain sections of the city were kept open on the two Sundays that fell within the census period.

Every development of the work that would be of the slightest information or assistance to the general public was given to the press without reserve. When the essential features of the census appeared to be thoroughly understood, special articles were prepared detailing some of the "human interest" stories that had come to light in the census-taking. On one day a special collection of data about the co-operation of the women's organizations was given to the newspapers. On another day, the legal preparations and arrangements that had been made with the city magistrates, the Police department, and the District Attorney's office for the prosecution of "slackers" were detailed at length. The object of the publicity work, that kept pace with the census-taking, was to focus the attention of the public on the census from beginning to end, so that those who had not registered during the first two days or the first week would feel impelled to register at the first opportunity without waiting until the last day.

The approximate estimates made from day to day indicated that on the last day about 200,000 persons would have to register if the quota of 2,900,000 was to be reached. The facts developed later showed that the estimates were conservative, for more than 2,900,000 had registered before the opening of the last day. Rumors had been circulated that in districts populated by Socialists a concerted evasion of the census had been planned. The "plot" as reported was to have thousands refrain from registering until the evening of the last day, and then crowd into the registration places in such numbers that they could not be registered before closing time. To meet this contingency, a "flying squad" of men from headquarters in several automobiles was sent out on the evening of the last day. They carried abundant supplies and were ready to bring extra registrars and clerks at a moment's notice to any registration place. But they were not needed. Instead of having an overwhelming rush of procrastinators on June 25th, many of the stations reported it their lightest day and closed early in the evening.

Taking the military census by mail

The secretary's office handled all of the mail from the beginning of the census work. This office was obliged to expand very rapidly in order to keep pace with the enormous increase in the volume of letters which marked the progress of information about the census to all parts of the country. For a number of days the average receipts were nearly 2,500 letters and during the last week, by actual count, 5,000 letters were received within a period of twelve hours. The total out-of-town registration was very nearly 50,000, all of which was handled through the secretary's office.

Thousands of inquiries from residents of New York, who were temporarily out of town, were received asking for detailed information as to how to register. All of these letters were marked "A." The letter "A" indicated to the stenographic division that the form letter explaining the method of registration to be followed by out-of-town registrants would answer the communication. A large number of individuals were uncertain whether they were legal residents of the city and State of New York and desired an opinion on this subject. Such letters were marked "B." The stenographic division understood from this sign that the form letter on the elements of legal status was to be forwarded to the writer. In like manner, fifteen other form letters that had been devised to answer inquiries were employed.

It was found that it was not possible to answer all of the communications by form letters. Many inquiries were answered directly by one of the assistant secretaries without burdening any other division of the census. A large number of interesting legal questions were sent in by mail and the letters containing these were cleared through the legal division. The name of the head of the division was written on the letter and the office messenger service immediately delivered the letter to the individual designated.

Great effort was made to have every letter attended to on the day it was received. The work was systematized so that one person opened the envelopes, a second removed the contents, and a third assorted them into piles. The returns from persons who had sent in their registration forms correctly filled out were at once acknowledged by forwarding them a certificate card with instructions to fill in their names and addresses on the lines indicated.

The secretary's office naturally continued to receive large numbers of returns long after the date set for the closing of the census on June 25th. This was easily accounted for by the fact that returns were received from places as far distant as San Francisco, Hawaii, and the Philippine Islands.

How the legal questions were worked out in New York City

Considerable difficulty was encountered in construing the duties and powers of the director and his assistants, as well as the rights and duties of the various classes of persons within the limits of the city under the provisions of the Census Law. Many novel points were raised for the solution of which precedents could not be found.

Prior to the taking of the census the War Committee of the Bar of the city of New York and members of the staff of the District Attorney of New York county were enlisted to assist in the solution of legal questions, and formal opinions on many points were requested from the Attorney-General of the State.

Preliminary consultations were held with Chief Magistrate McAdoo through whom all of the magistrates in the city were supplied with copies of the law, copies of the orders of arrest, supporting affidavits, orders of commitment, and the opinions of the Attorney-General's office.

The principal legal problems which developed were:

1. Whether or not an offense under the Census Law was a misdemeanor.

2. What powers of arrest were granted to the director, assistant director or others under the law, and in what instances such arrests would result in the personal liability of the one making it.

3. Whether or not witness and subpoena fees would have to be paid.

4. What would be considered to be competent evidence.

5. Whether an offense under the act was bailable or not.

6. Whether the director or magistrate had power to punish for an infraction of the law or whether his power was limited simply to compelling a person to register properly.

The director in New York proceeded on the assumption that his powers were ample under the law, and assumed the risk of personal liability for his actions despite the warning of prominent members of the War Committee of the Bar. It is obvious that no officer should be subjected to such a risk, and, in the event of any

subsequent census, the law should be made so clear and comprehensive that questions of this nature would not arise.

Prosecutions under the law

Reports and complaints in great numbers were received relative to the suspected delinquency of citizens of the greater city. In the 100 and odd cases which appeared to be worth investigating the persons accused were brought to the office of the director and examined under oath as to their registration. In only three instances did the director encounter a refusal to comply with his request. In these instances the arrest of the persons was ordered and thereupon they immediately agreed to comply with the law without any further delay or the necessity of a hearing before a magistrate.

For the purpose of serving subpoenas and investigating cases, the director had the hearty co-operation of the Police Commissioner of the city who assigned four police lieutenants to the office for a period of several weeks. In many cases, however, where it seemed doubtful that any offense had been committed, form letters were addressed to the parties concerned which invariably procured the attendance and explanation of such persons.

On the whole, practically no determined resistance to the provisions of the Census Law appeared, and, therefore, those points of law which had been considered doubtful were not put to a legal test.

A legal information bureau established

There was an entirely different class of legal questions much larger in number than those relating to the construction to be placed upon the Census Law itself. These questions did not arise from any desire to evade the law, but rather from a desire to give exact and correct information in compliance with the law.

Matters of citizenship and residence and status were the knotty points involved in these questions. There were literally thousands of them, many similar, but enough of them unique to require some very close and able legal reasoning. The status of women depended on that of their husbands, and many native Americans who were married to aliens protested vigorously against being classed as subjects of foreign governments.

The world war had so intensified the racial and patriotic sentiments of many men and women who were citizens of captured and conquered places, such as Poland, that they would flatly refuse

to be classed as subjects of Germany or Russia or Austria, as the case might be, and insisted that they be entered as subjects of whatever nation they chose as the object of their allegiance. This situation had been foreseen owing to the preliminary course of training in which hundreds of volunteers had been encouraged to raise questions. As a preventive of disorder and ill-feeling, it was decided to waive the strict construction of geographical boundaries in such cases. A number of ardent Celts refused to admit they were subjects of Great Britain and were allowed to enter "Ireland" as the country of which they were subjects. In this manner many complications which were only technical in their origin were adjusted or prevented.

An information bureau was manned by men with legal training to deal with these questions. It was kept very busy during the entire census period. One of the means adopted to reduce the pressure of telephone calls and personal visits on questions that could be answered generally was the preparation of material for the newspapers relating to typical incidents and questions. Practically every possible phase of the elements constituting citizenship and residence was subjected to interpretation. The State Department at Washington was asked to make rulings in exceptional cases and the local Federal officials in charge of naturalization and immigration were appealed to and assisted to a considerable degree in the solution of the questions. In addition to disputes over nationality, place of birth and allegiance, a number of other matters were considered. A number of ex-convicts, for example, who had reformed and, in some instances, had succeeded in preventing their families and new acquaintances from obtaining a knowledge of their past, were much disturbed over the answer they should make in response to the question: "Are you a citizen of the United States?" They believed they had "lost their citizenship" on being sentenceed to penal servitude for crime. They were informed that they had lost only certain of the rights of citizenship, such as the right to vote and hold office, but that they could certainly answer the question in the affirmative without subjecting themselves to the danger of prosecution for making a false reply.

The legal bureau a necessity in census work

One of the conclusions reached from experience in this census taking was that a legal information bureau is a necessity in the organization. The number of questions was very large in this

e, partly on account of the large number of aliens and transients New York city. The work, however, proved to be much more cting and much more extensive than had been anticipated. It plain that these matters require the undivided attention of a ff the size of which depends upon the size of the community.

nfusion as to requirements of State Military Law

The Military Census was two fold. First, there was the enumering and inventory that applied to everybody within the State tween the ages of 16 and 50, and second, there were the provisions of the Militia Enrollment Law.

The State Military Law requires that a special notice of enrollment be served on each person enrolled under its provisions in the ate militia. It had been decided that all male citizens and ens who had taken out their first papers of application for mission to citizenship should be enrolled in the militia at the me they appeared before the registrar to answer the questions for e census and inventory. Special notification blanks were rinted and the registrars were instructed to serve them personally pon all eligible males. They were instructed also to make a note f the service upon the registration form and subscribe their names as enrollment officers, with the date of service, and rubber stamps were supplied to facilitate the process.

The militia enrollment forms were printed in red ink. On the back they carried a section of the law which stated that all persons who claim exemption from service in the militia must file an affidavit stating the reasons for the exemption claim with the county clerk of the county in which they resided. This led to much confusion in New York city. Thousands of men, most of them aliens, who had not yet completed their naturalization, hurried to the county clerks in the five counties comprising Greater New York to claim exemption. The claims included the lame, the halt, the blind, as well as newly married men, and men with families of dependents.

The county clerks in some counties received the claims and filed them. Long lines of men were gathered daily in front of the county clerks' offices for several days, and many arguments and considerable interference with the work of the county clerks resulted. Finally, an order was received from the State authorities at Albany instructing all census officers and registrars to instruct the man served with the militia enrollment notice that

they were not required to file their claims for exemption with the county clerk.

This opinion was given by the Attorney-General in view of the fact that after the Census had started the United States Congress passed a law including the State Militia in the Federal Militia, thus changing the exemption clauses from State to Federal status.

Sorting and checking the returns

Before the census-taking period was over, the collection of returns was well advanced. It began during the first few days. Many of the supervisors even commenced sending in the returns at the close of the first day. The arrangements for sorting these returns had been made in advance and the separation of the forms according to the classification required was under way long before the census period had closed. A filing division had been established in each of the four boroughs, the Manhattan and Richmond work being consolidated at a great headquarters on Union Square. By August 6th, the director was able to report that the work had been completed and the returns transmitted to the State headquarters for tabulation.

It seemed only natural to expect that many thousands of the returns would be defective, since the registration had been performed entirely by volunteers and hundreds of thousands of aliens had been required to answer the questions. The fact is that many minor omissions were noted by the corps of editors who reviewed the census forms. Signatures had been omitted in some instances, in others it appeared that questions had not been answered, while in a large number of cases the registrars had omitted to signify that the notice of enrollment in the State Militia had been served on the eligible males between the ages of 18 and 45.

Postal card notices were sent to all persons whose returns contained omissions. They reported to the supervisors at the borough headquarters, and the errors were corrected. When the final delivery had been made to the State headquarters of the complete returns with all omissions rectified, only approximately 500 returns remained that the filing and sorting supervisors were unable to complete. In other words, the State received all the information it had requested from the residents of New York city with the exception of 500 persons who had given more or less complete information and could not be located to supply the deficiencies. This showing was considered remarkably good.

e method of sorting in the borough headquarters

The men of the State included between the ages of 21 and 30 the Federal Conscription Act required a separate classification, d in addition it was desired to know the number of citizens as stinct from the number of aliens within the State boundaries.

It was necessary, therefore, as the completed forms were turned from the registration stations to examine the forms nd assemble those of each borough in order that they might be rwarded to the respective borough headquarters.

Each form was then edited in detail to see that all questions had een answered, that the forms had been signed by both the census gent and by the registrant, and if the individual registering were ubject to State draft that a notice to that effect had been entered y means of a rubber stamp attested by the signature of the egistrar who acted in the dual capacity of enrollment officer and ensus registrar.

In the assembling division the female census forms were sorted into two classifications: (1) citizens and (2) aliens. These were made up in packages of 3,000 and forwarded to State headquarters.

The returns from male registrants, because of the several classifications comprehended under this group, presented a more complicated situation. It was necessary first to sort into (1) citizens and (2) aliens, and then to subdivide each of these groups in the classification shown below:

1. Citizens
   a. Ages 18 to 45 for enrollment division.
   b. Other ages for State headquarters.
2. Aliens
   a. Declarants
      (1) Ages 18 to 45 for enrollment division.
      (2) Other ages for State headquarters.
   b. Other aliens
      (1) Ages 21 to 30 for State headquarters.
      (2) Other ages for State headquarters.

The two groups subject to the State draft were then sent to the enrollment division to be treated in accordance with the rules prescribed by law to pave the way for a State draft should conditions arise that make a draft necessary.

The Brooklyn filing office may be mentioned as an example of the sort of work that was done. This office handled all the work

following the actual census-taking for the borough very efficiently. During the period of the census-taking a total of 638 volunteers worked at the Brooklyn headquarters, but most of them failed to report after the schools closed. On July 5th a school of instruction in business practice and organization was organized, the students of which worked on the census and in return received instruction in business methods and attended a course of lectures organized for their benefit. A total of 139 students was obtained and with the volunteer workers and city employees assigned to the headquarters, a total attendance of 150 workers was secured at an average of three and one-half hours per day. The volunteer workers in Brooklyn headquarters included 42 employees of several city departments, 313 students from the high schools, and 283 others who volunteered from patriotic motives.

The same story could be told of each of the other borough headquarters where hundreds of volunteer workers co-operated with the city employees and the Bureau of Municipal Research members assigned to the exacting work of editing, sorting and filing the millions of forms. In this work several large corporations assisted materially. The Metropolitan Life Insurance Company leads the list. This company furnished the services of 300 expert filing clerks for seven nights, three hours a night, to handle the enormous volume of returns at the Manhattan headquarters on Union Square. They provided their own supervision and trained their girls for this particular work. They paid them at overtime rates, at a cost of several thousand dollars. The Equitable Life Assurance Society provided a force of ten expert male clerks for a period of two weeks in Queens and Brooklyn. The city departments assigned a number of experts to supervise the work in other boroughs.

Enrollment division

The census returns showed that there were more than 800,000 eligibles in the city of New York between the agess of 18 and 45 who came under the provision of the State Draft Law. It was necessary that a list be prepared in quadruple for each county in which should appear the names of eligibles within its borders, one copy for the Adjutant-General, one for the director of the census, one for the city clerk, and one for the county clerk.

In respect to each person, it was necessary to enroll the name, address, age, date of birth, occupation and previous military experience.

battery of thirty typewriters was obtained and operators there- were secured from business agencies.

Except for one porter employed at the warehouse, the enroll- t division was the only one in which any public funds were ended for personal service during the entire census period in w York city.

In the early stages of this operation, the cost per thousand s very high so the workers were divided in three teams and a chine hour rate expressed in terms of sheets was adopted with ime bonus awarded to the winning team each week and a special e bonus for the leading operator. This arrangement was after- rd supplemented by a cash bonus for each worker for all sheets er a given number. By these methods, the cost per thousand as reduced to 20 per cent of its original figure.

ancial side of the New York city census taking

The cost of taking the census in New York city was defrayed y the State of New York, the city of New York and contributions rom private sources.

The State printed all of the census forms, cards, certificates, nstruction books and other matter that directly concerned the ctual returns and reports desired by the State authorities. That represented all of the expenditures that were incurred by the State as far as New York city was concerned.

The city of New York, through the Mayor's Committee on National Defense, defrayed all of the other cash expenditures of an official nature that were incurred in connection with local printing, postage, telephones and telegrams, the hiring of delivery trucks and automobiles for emergency service at late hours, the cost of printing extra and special notices to the census agents, and the extra equipment and supplies that were required in an undertaking of this size. The few instances in which direct expenses were incurred for personal service were also met by the Mayor's Committee on National Defense. The total amount appropriated by the Mayor's Committee was $30,000.

The contributions from private sources were in the form of cash outlays and service performed by employees for which the organizations that assisted paid. The cost to the Bureau of Municipal Research which, through its director and staff actively supervised the work, amounted to more than $22,000. In this total no account is made of indirect expense such as rent and light.

There is no way in which to approximate the total value of the contributions of personal service by individual volunteers, owners of automobiles and delivery trucks, clubs, civic organizations, and corporations. The rental value of the registration places that were loaned for the census work, the janitorial service, the light that was furnished and the wear and tear on equipment and buildings cannot be estimated. The persons and the organizations that assisted did not count the cost, they felt that they were assisting in a useful and patriotic work. Letters of thanks from the Mayor and the director were sent to many organizations and individuals who had given the most important assistance in these lines, and all received a testimonial from Governor Whitman. The only real return to the majority was the consciousness of a duty well done.

Practically all of the appropriation from the Mayor's Committee on National Defense was used. The appropriation was placed at the disposal of the director for New York city subject to the audit and approval of the Mayor's Committee and the city comptroller.

The office manager of the Bureau of Municipal Research was given charge of the expenditure control under the personal supervision of the director. The contracting of obligations against the appropriation was left entirely to the Bureau, except that the approval of the Mayor's Committee was required for expenditures involving more than $200, or for matters involving an important question of policy.

The basis of expenditure control was the purchase order system. For this purpose a simple form of purchase order was used, providing for two copies only, the vendor's and the purchasing agent's. It provided the usual spaces for vendor's name and address, printed directions as to submission of bills, delivery terms, etc., quantity, description, unit price and total of items, checking of receipt of goods, serial number, date, by whom ordered, purchasing agent's signature, director's approval initials, and account chargeable.

Members of the organization presented to the office manager requisitions for supplies, equipment or personal service on simple mimeographed requisition slips, describing the article or service desired and signed by the person making the request. The office manager used his judgment as to whether such requisition would be honored direct or should have the director's approval.

On receipt of such requisition properly signed a purchase order was made out. Each order bore a serial number. Duplicate cards (8½ x 11) ruled in columns for serial number, vendor's name, date, and amount of order, lay on the office manager's and on the director's desks. As the purchase order was made out the corresponding number on the card was canceled and description entered. The order was then forwarded to the director who, approved by his initials, made a record upon his card and returned the order to the office manager.

The details of the system were designed so that a moment's recourse to the adding machine would show the total encumbrances of appropriation to date, and thus by subtraction, the unencumbered balance of appropriation.

Vendors were instructed to submit all bills in triplicate due to the local situation. The bill was then stamped and routed through the office for approving initials on the following points; date of receipt of goods, condition of goods, correctness of extensions and correctness of price, after which it returned to the office manager.

At short intervals, these bills were forwarded to the Mayor's Committee for payment together with a schedule giving date of bill, name of vendor, and amount of bill.

A fund of $50 was set up to take care of miscellaneous expense for postage, small supplies, car fare and the like, and one large item — transportation. The petty cash disbursements were made on presentation of small slips ruled to show date, purpose of disbursement, amount, signature of recipient of each and office manager's approval initials. The slips made out in duplicate were not honored without the approving initials mentioned. Reimbursement request to keep the imprest fund at $50 was made in the form of a bill to the Mayor's Committee supported by petty cash vouchers and entered upon purchase order as previously mentioned.

It would be absurd to contend that the system was ideal. It was frankly a temporary scheme designed to utilize to as large an extent as possible the material and organization already in existence, and as such, it proved easily workable and efficient. There was no breakdown, lost motion or even noticeable error in this branch of the work. From the Bureau standpoint it was entirely satisfactory.

No recommendation for a general system of expenditure control for war census work is made, since it is highly improbable that the triple co-operative arrangement of city comptroller's office, Mayor's Committee on National Defense and the Bureau of Municipal Research will be duplicated elsewhere. The local situation should be the guide and a plan adopted that most smoothly fits in with existing conditions.

Total registration in New York city

The following tables give a brief summary of the registration in New York city by boroughs:

NEW YORK STATE MILITARY CENSUS AND INVENTORY—SUMMARY OF TOTAL REGISTRATION BY BOROUGHS OF NEW YORK CITY

	Total	Manhattan	Bronx	Brooklyn	Queens	Richmond
Females	1,650,775	702,080	214,162	584,541	121,789	28,203
Males:						
Militia, 18–45:						
Citizens	798,005	266,100	119,400	313,344	80,361	18,800
Declarants	216,160	105,850	28,700	69,124	9,586	2,900
Other than militia:						
Citizens	172,375	70,561	20,955	60,033	16,782	4,044
Aliens	443,555	249,800	37,400	133,511	16,344	6,500
Total	3,280,870	1,394,391	420,617	1,160,553	244,862	60,447

Extension of time for out-of-town registrants

For a period of two weeks, the various borough headquarters and several other stations were kept open for the accomodation of persons who had been unable to register, owing to illness or absence, between June 11 and June 25. These stations were closed, one by one, until there were only three places remaining, one at the headquarters in the Bureau of Municipal Research, one at the Seaman's Institute, for seaman and ships' officers, and one at the Mid-Day Minute Men's headquarters, near City Hall Park. The last place was kept open and manned by volunteers until the middle of August. The headquarters in the Bureau of Municipal Research was still receiving registrations in the latter part of September* from travellers and seaman who had returned from distant ports. The men who followed the sea were particularly anxious to register because shipowners, in general,

*For example, on September 20th, eight men from a ship that had just arrived were registered.

refused to allow their employees to sail from New York without a certificate of registration.

Many persons (about 2,500 to date) have reported that they have lost their registration certificates and they have been given special certificates upon making affidavit to the facts. This work has been continued at the Bureau of Municipal Research with the assistance of several devoted volunteers.

Heads of Census Organization Divisions

The following were appointed as deputy and assistant directors of census, New York city, in charge of the various divisions of work:

Deputy Directors

Mrs. F. Louis Slade.
Clement J. Driscoll.

Assistant Directors

1. J. B. Creighton, 1809 Avenue H, Brooklyn.
2. Walter I. Willis, 44 Geranium street, Flushing, L. I.
3. Charles F. Minor, 2 West 129th street, New York city.
4. Mrs. William G. Willcox, 115 Davis avenue, West New Brighton.
5. Chester J. Teller, 261 Broadway, New York city.
6. Mrs. Daniel A. Palmer, 631 E. 168th street.
7. Mrs. Frederick L. Cranford, 479 Clinton avenue, Brooklyn.
8. Shepard A. Morgan, 829 Park avenue, New York city.
9. Mr. Alfred D. Flinn, 261 Broadway, New York city.
10. Dr. Carl E. McCombs, 296 Madison street, Brooklyn.
11. Russell H. Allen, 297 Ryerson street, Brooklyn.
12. W. G. H. Brehmer, 118 Cypress avenue, New York city.
13. Dr. Creighton Barker, 34 West 44th street, New York city.
14. George M. MacAdam, 54 Morningside drive, New York city.
15. Dr. Birl E. Shultz, 180 Claremont avenue, New York city.
16. James A. Taylor, 521 W. 123d street, New York city.
17. J. A. Nicholls, 26 Jones street, New York city.
18. Frank H. Pennington, 58 Frelinghuysen road, Tompkinsville, N. Y.
19. C. D. Benson, 255 West 101st street, New York city.

20. Henry Butterworth, 127 West 56th street, New York city.
21. J. Harman-Ashley, 104 West 94th street, New York city.
22. S. G. Lindholm, 46 Dominick street, New York city.
23. M. G. Lawton, 113 Waverly place, New York city.
24. J. O. Rees, 1120 Amsterdam avenue, New York city.
25. Darrell H. Smith, 261 Broadway, New York city.
26. C. Alan Eckels, 7 Delaware place, Flushing, L. I.
27. Charles F. Kerrigan, 87 Lenox road, Brooklyn.

E. P. GOODRICH,
Director for New York City.

V. THE CENSUS OFFICE

At the first conference of those who organized the State Military Census and Inventory, under Captain Henry, Director, it was decided that since the work in hand necessitated the employment of between 700 and 900 clerks, whom it would be very difficult to secure in Albany, and since it would require the constant supervision of, and consultation with men of actuarial training, it would be advisable to establish a tabulating and filing division in New York city.

A committee was appointed to select suitable quarters, having in mind the necessity of locating the bureau in a building capable of sustaining a dead weight of not less than 300 pounds to the square foot. The committee, with the assistance of the New York city authorities, secured for the use of the bureau three floors in the building at 49 Lafayette street. This building had light on all four sides, high ceilings, and a construction which could stand the required amount of weight.

On April 16th, the New York office was established with a preliminary force of six people. On May 4th, thirty-five clerks were employed and the numbers were increased until on July 16th the total number employed was over 800.

During the entire twenty-four weeks existence of the branch office over five and a half million documents have been received, and these have been coded, the information transferred to a corresponding number of Hollerith cards, the original census forms filed in their proper geographical position, the Hollerith cards sorted into pre-determined groups, and a completed study of the results made.

From the start, the bureau has been constantly requested to supply information to all branches of the Federal and State Departments, to the British, French and Italian governments, and to all kinds of organizations with properly constituted authority behind them. These calls included not only those people who expressed a desire to enlist in the National service, but those people of military age, native born, aliens with first papers, who could be of use in their professional capacity to the country. The names and addresses of the following have been supplied: 1,255 wireless operators; 240 horseshoers; 700 ship builders; 1,659 cooks, 1,806 bakers; 1,368 butchers; 75,600 who desired to enlist in the army; 18,125 who desired to enlist in the national guard;

6,000 who desired to enlist in the navy; 1,100 who desired to enlist in the marine corps.

The British Commission has been supplied with the names of over 60,000 British subjects residing in New York State.

The Navy Yard in Brooklyn has been furnished with the names of 550 steam engineers, 549 machinists, 550 power boat operators.

The Mayor's Committee was supplied for the purpose of Americanization of the Greater City, with the names of 1,215 people who are qualified to teach.

There has been received and turned over to the proper authorities during the time of operation a vast quantity of information relative to the activities of enemy aliens. Great assistance has been given to the Federal authorities, in many instances, in checking up the information given in the Federal draft by those who desired to evade service in the National Army.

Several requests have just been received from chairmen of the Liberty Loan Committee for permission to use the census returns in their work, as there is no other complete county record available. These requests are being honored.

Summary of work

The principal operations in connection with the work of tabulation were as follows:

1. Opening the envelopes and unfolding the blanks for use.
2. Sorting of census forms to determine whether those for men had not been included with those for women.
3. Segregating the census forms of residents in the large cities, to make the work of coding easier.
4. Coding each blank (There were nine codes).
5. Checking the work of the coders.
6. Perforating the cards.
7. Checking the perforations on the cards.
8. Typing the name and address.
9. Sorting the cards by means of machinery.
10. Segregating such groups as were necessary for tabulation.
11. Filing the blanks according to city and district.
12. Placing the cards in a specified order for future use.

Various experiments were adopted to get the best and most accurate work from the employees. One group of workers competed with another, both as to the amount of work done and the absence of errors. An honor list was made of those who did the largest amount of work and did it correctly.

Receiving division

In anticipation of receiving daily from the 62 different counties, the blanks as completed, it was deemed advisable to prepare a storage place, and with this in view there were constructed seven bins 30 feet long, 2 feet wide and 12 feet high, with a capacity for holding the 6,000,000 blanks which it was understood would be sent in.

The blanks were received in large white envelopes printed in three colors: (a) red, denoting males between the ages of 21 and 30; (b) black, denoting males between 16 and 20, and 31 to 50; (c) blue, denoting women between 16 and 50. The purpose of the different colors was to make it possible for the work shop to pick out quickly the blanks most necessary for the needs of the Government. As the blanks were received, a record of the number of each kind was made out on a form already provided and this report was telephoned to the Albany office and later confirmed by the report blanks. This was done so that the Albany office would be kept in touch with the number of blanks sent in from the various counties and so that they would be able to check off those counties which were slow in sending in the completed blanks. A second record was made daily on a card showing the number of blanks received from each county, and from which it was possible to keep an accurate account of all the work received. This division of the work required the services of six men and two women for a period covering June 11th to July 15th. There were over 5,600,000 blanks received.

Verifying

This work was done by girls on a special machine, for which each girl received $10 per week; 25 to 30 were employed on each shift.

It was necessary that all cards punched should be verified as to correctness, it being recognized that many errors would occur in the punching of the cards. The amount of work done per girl averaged from 1,800 to 2,200 per day and 1,500 to 1,900 per night.

Typing division

After the Hollerith cards were verified they were turned over to the typing division. The name and address were typewritten on the card in the place provided, and in order to insure correctness the typist was obliged to compare the county, age and occupation

code numbers as punched on the card with the code numbers on the blank. There were employed on the work from 55 to 115 girls receiving a salary of $10 per week. At the start it was felt that 150 cards a day would be a fair average, in view of the necessity of comparison; but by an efficiency blackboard, together with minor rewards, the daily average exceeded 1,000 per clerk, rising to 2,000 in some instances. Notwithstanding the comparison made by the typists, the work was checked back for possible errors. The daily output varied from 60,000 to 96,000, according to the number of typists employed.

Filing of blanks

In order to provide for the filing of the 5,600,000 blanks cabinets containing four drawers each of the vertical type were used. It was also necessary to provide 30,000 ordinary guide cards from which were made 350 sets of guides of twenty-four subdivisions and eighty sets of one hundred and twenty subdivisions. Special guide cards of 540, 960, 1,200, 2,000, 2,600 and 2,900 subdivisions were made to take care of the larger cities. All large cities outside of Greater New York were filed alphabetically. Those in Greater New York were filed by street and house number. The system employed was (a) separate by counties (b) separate by cities (c) separate by names. The number of clerks employed varied from 12 to 120. Experts in the filing of the blanks were used for that purpose. They received $15 per week, working at night only. All other help was by girls who received $10 per week, working on the two shifts already described.

LEO H. MCCALL,
Assistant Director in Charge of New York Office.

VI. FINANCIAL STATEMENT

Chapter 103 of the Laws of 1917 provided for the taking of the census and inventory of the military resources of the State, made an appropriation of $150,000 for the purpose of the act and also provided that Governor Whitman be authorized to receive donations of money for such purposes in addition to the amount thereby appropriated.

It would appear that the Legislature in appropriating $150,000 fully realized that the amount would be insufficient to complete and compile an inventory of the State's resources and a census of the population, when it authorized the Governor, in the same act to receive donations.

Governor Whitman, in addition to the appropriation, received from private individuals donations amounting to the sum of $21,-085 and it was found necessary, in order to complete the tabulation of the census and to provide for the preservation of the records, for the State Defense Council, created under the provisions of chapter 369 of the Laws of 1917, to supplement the appropriation made by the Legislature and the donations received from private individuals by the sum of $85,964.94. Thus, the completed work provided for under chapter 103 of the Laws of 1917 has cost the State $256,951.44.

The financial transactions of the body created by this chapter, that is, the Bureau of Military Census, were begun under adverse circumstances. The Governor designated the Adjutant-General of the State of New York as the proper person to take the Census and Inventory and the task was begun, without establishing any precedent as to the latitude of the work or the availability of any plans for reference. The Director of Census appointed a staff and plans were consummated for the initial taking of the census and arrangements made in the city of Albany to provide for the taking of the census and the tabulation. Conditions became so chaotic that the Director of Census was forced to call upon the New York Life Insurance Society for voluntary aid and that Society furnished Mr. Henry B. Tolen, a financial officer who came to Albany and assumed charge of the financial affairs.

On May 4, 1917, chapter 369 of the Laws of 1917 created the State Defense Council and provided for the council to exercise authority over all financial activities of the Military Census. The

Council established a system of authorizations and in order to have a complete statement of financial transactions, established upon its records all liabilities incurred and contracted prior to its creation. These authorizations appear upon the Council's books as "M" authorizations, the letter "M" designating all authorizations prior to its creation and the total amount of those authorizations was $55,777.11, against which cancellations have been established of $4,110.76, leaving the total net authorizations by the Council, under "M" class of $51,666.35. The council issued authorizations under its direct supervision of $120,593.08, against which there were cancellations established of $22,147.24 and credit memorandum of $213.29, leaving the total net authorizations by the council, under chapter 103, of $98,232.55. The total net authorizations under both classes against chapter 103 were $149,898.90. There was authorized by the State Defense Council from the funds provided by chapter 369 of the Laws of 1917, $87,312.75, against which there were cancellations established of $1,345.21, leaving the net authorizations out of funds of chapter 369, of $85,967.54.

In addition to the above, there was received from private contributions the sum of $21,085, which amount was expended for personal service. Thus, the total expended from the three sources for the purpose of taking, tabulating and preserving the military census of the State was $256,951.44.

The financial report of expenditures has been divided into three classes, the taking of the census, the tabulation of the census and the preservation of records. All expenditures charged to the taking of the census were directly supervised from an office in the city of Albany. All expenditures charged against this part of the activity were normal expenditures, with the exception of printing, which item, of course, provided for the supply of all blanks for the recording of upwards of 5,600,000 people.

The tabulation of the census was performed in New York city. The largest item of expenditure was $96,540.85 for personal service. This sum was expended for sorters, checkers and typists, and the wage paid to all but a few of the employees was at the rate of $1.66 per day.

The second largest item was that of supplies, under which heading was provided all the cards for the recording of the census under the Hollerith system.

The third largest item was that of repairs. The city of New York gave as a donation the use of the building at No. 49 Lafayette street at a nominal rental, but in order to properly accommodate the large force engaged in the tabulation of the census, it was found necessary to provide sanitary conditions and to install new lighting facilities.

The following is a statement of the financial affairs of the Military Census Bureau.

Appropriated by chapter 103 of the Laws of 1917	$150,000 00
Allotted from the funds under the provisions of chapter 369 of the Laws of 1917	85,964 94
Donations from private individuals	21,085 00
Total	$257,049 94
Expenditures	256,951 44
Cash balance	$98 50

	Taking of Census	Tabulation of Census	Preservation	Total Expenditures
Personal service	$4,727 77	$96,540 85	$198 00	$101,466 62
Fuel, light, power and water	142 45	124 92	.....	267 37
Printing	72,888 05	.....	.....	72,888 05
Advertising	100 00	.....	.....	100 00
Equipment	1,683 58	4,714 17	28,368 00	34,765 75
Supplies	6,473 38	13,506 22	.....	19,979 60
Traveling expenses	2,909 98	1,370 05	.....	4,280 03
Communication	2,220 38	2,868 22	1,843 70	6,931 30
General plant service	411 78	65 64	.....	477 42
Rent (tabulating machines)	.....	4,831 44	.....	4,831 44
Rent (typewriters)	.....	1,191 50	.....	1,191 50
Rent	1,692 56	.....	.....	1,692 56
Repairs	.....	8,078 00	.....	8,078 80
	$93,249 93	$133,291 81	$30,409 70	$256,951 44

JOS. H. WILSON,
Auditor State Defense Council.

After completion of the tabulation, the primary records were removed from the property of the city of New York and placed in the State arsenal at Thirty-fifth street and Seventh avenue. All cards bearing the tabulation of the information taken from the original records were transported to Albany and placed in a room provided for the records in the basement of the capitol. A Hollerith sorting machine was installed to meet all demands for information relative to the records of the inventory and the census. All requests for information contained in the records of

the census are being supplied by the Adjutant-General of the State and the proper facilities for the supplying of this information are being met from the funds under his supervision.

Provision was made under the terms of chapter 103 of the Laws of 1917 for the purpose of taking the Military Census and and Inventory of the Military resources of the State.

The financial affairs of this Commission were under the control and supervision of the State Defense Council created by chapter 369 of the Laws of 1917, effective May 4, 1917.

VII. APPENDIX

CODE FOR EXEMPTION

1 Religious scruples
2 Physical disability
3 Too many dependents
4 Born in enemy country
5 Exempted occupation
6 In Government or State service (exempted)
7 Mentally deficient
8 All other reasons

CODE FOR FOREIGN LANGUAGES

0 None
1 French
2 German
3 French and German
4 Spanish
5 Italian
6 Russian
7 Japanese
8 Other languages

CODE FOR COUNTRY OF BIRTH, NATIONALITY OR RACE

01 United States (including Alaska and Panama)
02 United States Territories and Possessions (Porto Rico, Philippines, Hawaii, etc.)
03 England
04 Ireland
05 Scotland
06 Wales
07 Canada and Newfoundland
08 Australia, New Zealand, South Africa
09 India and Egypt

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10 Belgium
11 France
12 Italy
13 Portugal
14 Roumania
15 Russia
16 Finland
17 Poland
18 Servia, Montenegro and Albania

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20 China
21 Japan
22 Armenia and Syria
30 Austria
31 Bohemia
32 Bulgaria
33 Germany
34 Hungary
35 Turkey in Europe
36 Turkey in Asia (excluding Armenia and Syria)
40 Denmark
41 Greece

42 Holland
43 Norway
44 Spain
45 Sweden
46 Switzerland
50 Central America, (excluding Mexico) and including Guatemala, Honduras, Salvador, Costa Rica and Nicaragua
51 Mexico
52 Argentina
53 Brazil
54 Chile
55 Balance South America, including Bolivia, British and Dutch Guiana, Colombia, Venezuela, Ecuador, Peru, Uruguay
56 Cuba
57 British West Indies
58 Other West Indies as Hayti, Santo Domingo, but not Porto Rico

60 Africa, (excluding South Africa and Egypt)

70 Miscellaneous, such as Ceylon, Siam, Persia

CODE FOR MILITARY OR NAVAL SERVICE OR TRAINING

1 Regular Army
2 Navy
3 Marine Corps
4 National Guard
5 Naval Militia
6 Volunteers
7 Reserves
8 Military or Naval training at school, college, camp or cruise
9 Service in foreign country

Code for Highest Grade Held in Above Organizations

1 Private
2 Non-commissioned officer, petty officer, warrant officer
3 Commissioned officer below rank of Captain in Army or Lieutenant in Navy
4 Captain, Major, Lieutenant Colonel and Colonel in Army, or Lieutenant, Lieutenant Commander, Commander and Captain in Navy
5 All above rank of Colonel in Army or Captain in Navy

Branch of Army

1 Staff Departments
  (a) General Officer
  (b) Adjutant General's Office
  (c) Inspector General's Office
  (d) Judge Advocate General's Office
  (e) Ordnance Department
2 Quatermaster Corps
3 Engineers Corps
4 Medical Departments
  (a) Medical Corps
  (b) Dental Corps
  (c) Veterinary Corps
  (d) Field Hospitals
  (e) Ambulance Companies

Bureau of Navy

1 Bureau Officer
2 Line Duties
  (a) Navigation
  (b) Gunnery
  (c) Signal
  (d) General Administration
3 Engineering Duties
  (a) Steam
  (b) Electric
  (c) Radio
4 Pay Corps
  (a) Paymaster Corps
  (b) Quartermaster Corps
5 Medical Department
6 Aeronautic Branch

5 Signal Corps
6 Cavalry
7 Field Artillery, Armored Motor Battery, Aero Corps
8 Coast Artillery
9 Infantry

CODE FOR OCCUPATION

001 Dairy farmers and foremen
002 Dairy farm laborers
003 Farmers and foremen
004 Farm laborers
005 Gardeners, florists, fruit growers and nurserymen (proprietors and foremen)
006 Same as above, laborers, including greenhouse
007 Stock raisers
008 Stock herders, drovers and feeders
009 Fishermen and oystermen
010 Foresters
011 Log and timber camps, owners and managers
012 Lumbermen, raftsmen and wood choppers, including foremen and overseers
013 Other agricultural and animal husbandry pursuits, including poultry raisers
014 Millers and foremen
015 Millers' employees
016 Dairy products, creamery, etc., proprietors, supervisors and foremen
017 Dairy products, etc.— Other employees

020 Legislative, executive and judicial officers of the United States and of the several States and Territories
021 Military service
022 Naval Service
023 Clergymen, Priests and Rabbis

026 Customs-house clerks
027 Postoffice employees
028
029 Navy Yard employees
030 Arsenal employees
031 Armory employees
032 Ship-building yard employees
033 Firemen, City Departments
034 Police Force of cities and towns
035 Other policemen
036 Mariners in sea service or on Great Lakes
037 Officers of ships in sea service or on Great Lakes

Explosives

040 Proprietors, managers and supervisors
041 Clerical force and salesmen
042 Other employees

Firearms, Cartridges, Shrapnel, Etc.

045 Proprietors, managers and supervisors
046 Clerical force and salesmen
047 Other employees

Extraction of Minerals

050 Operators, officials, managers and owners of mines
051 Coal mine — foremen and overseers
052 Coal mine — operatives
053 Quarry — foremen and overseers
054 Quarry — operatives
055 Copper — foremen and overseers
056 Copper — operatives
057 Iron — foremen and overseers
058 Iron — operatives
059 Lead and zinc — foremen and overseers
060 Lead and zinc — operatives
061 Gold and silver — foremen and overseers
062 Gold and silver — operatives
063 Oil Well — foremen and overseers
064 Oil Well — operatives
065 Salt Well — foremen and overseers
066 Salt Well — operatives
067 Gas Well — foremen and overseers
068 Gas Well — operatives

Agricultural Machinery Makers

070 Proprietors, managers and superintendents
071 Clerical force and salesmen
072 Other employees

Aeronautics

100 Aeroplane works, employees of
101 Aviation instructor
102 Aviator
103 Balloonists or makers of balloons

110 Automobile drivers, including chauffeurs and gasoline truck drivers, and drivers, city bus lines
111 Automobile repairman
112 Automobile garage, other employees in
113 Electric truck or electric carriage driver

Automobile Factory

(*Other than Nos.* 110–113)

115 Proprietors, managers and superintendents
116 Clerical force and salesmen
117 Mechanics and other employees

119 Artificial limbs, makers of
120 Baker
121 Blacksmith and horseshoers
122 Butcher (slaughter house)
123 Chemist (not druggist)
124 Carpenter
125 Chiropodists
126 Cook
127 Dentist
128 Electricians and wiremen
129 Electrical Engineers, excluding motormen
130 Hostlers and Stable Hands

131 Nurse
132 Oculist
133 Painter
134 Plumber and Steam Fitters
135 Pharmacist
136 Photographer
137 Physician
138 Saddler and Harness Makers
139 Sailmakers
140 Shoemaker, not in factory
141 Steam engineer (stationary)
142 Surgeon
143 Tailor, not in factory
144 Tent-maker
145 Veterinary Surgeons

150 Telegraph operator
151 Telephone operator
152 Stenographer and court reporter
153 Typewriters
154 Wireless operator
160 Assayers and Metallurgists
161 Civil engineers and surveyors
162 Mining engineers
163 Consulting engineers
164 Construction and Excavation engineers

Stone, Clay and Glass Products

Brick, terra cotta and fire clay bricks, enameled bricks, mosaics; pottery products, including chinaware, crockery, porcelain, stoneware and whiteware; lime, cement and plaster, including asphalt, artificial stone and stucco, gypsum; stone, marble and slate, including soapstone, pumice-stone and hones; other mineral products, such as asbestos, graphite, carborundum emery, mica, talc, emery paper, sand-paper, feldspar

200 Proprietors, Managers and Superintendents
201 Clerical force and Salesmen
202 All other employees*

Metals and Machinery

Gold, silver and precious stones, including assaying, refining, smelting and manufacturing of jewelry

500 Proprietors, Managers and Superintendents
501 Clerical Force and Salesmen
502 All other employees*

Brass, copper, aluminum, smelting and refining

503 Proprietors, Managers and Superintendents
504 Clerical Force and Salesmen
505 All other employees*

Manufacturer of brass, bronze, copper, aluminum, lead, zinc, nickel and miscellaneous metal goods, such as bells, gas fixtures, locks and wires

506 Proprietor, Managers and Superintendents
507 Clerical Force and Salesmen
508 All other employees*

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* Except Nos. 123, 124, 128, 129, 134 and 141.

Iron and steel products; ore crushing, rolling mills, steel mills; forgings, structural and sheet iron work.

509 Proprietors, Managers and Superintendents
510 Clerical Force and Salesmen
511 All other employees*

Cutlery, implements, tools, hardware, instruments

512 Proprietors, Managers and Superintendents
513 Clerical force and salesmen
514 All other employees*

Locomotives, Cars

515 Proprietors, Managers and Superintendents
516 Clerical Force and Salesmen
517 All other employees*

Electrical Apparatus

518 Proprietors, Managers and Superintendents
519 Clerical Force and Salesmen
520 All other employees*

Manufacture of Wood

Wood manufacturers, saw mill and planing mill products, including lath, shingle and excelsior, barrels, cigar boxes, etc.; miscellaneous wood articles, such as chairs, ladders, wagon hubs, wooden ware, pencils, pipes, rattan goods; furniture, cabinet work, pianos, organs

203 Proprietors, managers and superintendents
204 Clerical force and salesmen
205 All other employees*

Furs, Leather and Rubber Goods

Leather tanning, curing and salting hides

521 Proprietors, Managers and Superintendents
522 Clerical Force and Salesmen
523 All other employees*

Manufacture of saddlery, harness, bags, gloves and miscellaneous articles, except boots and shoes

524 Proprietors, Managers and Superintendents
525 Clerical force and Salesmen
526 All other employees except Saddler and Harness Maker*

Boots and shoes.

527 Proprietors, Managers and Superintendents
528 Clerical Force and Salesmen
529 All other employees*

Furs and fur goods, including dressing and dyeing

530 Proprietors, Managers and Superintendents
531 Clerical Force and Salesmen
532 All other employees*

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*Except Nos. 123, 124, 128, 129, 134 and 141.

Canvas goods, including awnings, canvas bags, sails, tarpaulins, tents and window shades

533 Proprietors, Managers and Superintendents
534 Clerical Force and Salesmen
535 All other employees except Tent and Sail Makers*

Rubber and gutta-percha goods.

536 Proprietors, Managers and Superintendents
537 Clerical Force and Salesmen
538 All other employees*

Pearl, bone, celluloid, hair, etc., including combs, sponges, brushes, feather dusters, pillows, hair mattresses

539 Proprietors, Managers and Superintendents
540 Clerical Force and Salesmen
551 All other employees*

Medicines

552 Proprietors, Managers and Superintendents
553 Clerical Force and Salesmen
554 All other employees*

Paints, Dyes and Colors, Including Varnishes and Inks

206 Proprietors, Managers and Superintendents
207 Clerical and Selling Force
208 All other employees*

Chemicals

Chemicals of all kinds, including baking powder, gas mantles, washing fluids, etc.; mineral and animal oils, wood alcohol and other oils, including candles, gasoline, naphtha, tallow, linseed oil, soap, perfumery, cosmetics and miscellaneous chemical products, except explosives

555 Proprietors, Managers and Superintendents
556 Clerical Force and Salesmen
557 All other employees*

Photographic Supplies

558 Proprietors, Managers and Superintendents
559 Clerical and Selling Force
560 All other employees*

Manufacture, Etc., of Paper and Pulp

Manufacture of pulp and paper; sorting waste papers; printing and paper goods, including paper boxes, letter files, paper flowers, perforated music, sample cards, stationery; printing and book-making, including bookbinding, electrotyping, engraving, lithographing; wall paper

210 Proprietors, Managers and Superintendents
211 Clerical Force and Salesmen
212 All other employees*

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* Except Nos. 123, 124, 128, 129, 134 and 141.

Textiles

Manufacturers of silk, silk goods, linens, lace

213 Proprietors, Managers and Superintendents
214 Clerical Force and Salesmen
215 All other employees*

Manufacturers of cordage, burlap, oil cloth

561 Proprietors, Managers and Superintendents
562 Clerical Force and Salesmen
563 All other employees*

Manufacturers of woolen goods, mixture of cotton and wool, etc.

300 Proprietors, Managers and Superintendents
301 Clerical and Selling Force
302 All other employees*

Clothing, millinery, men's and women's garments, furnishings, head-wear

303 Proprietors, Managers and Superintendents
304 Clerical and Selling Force
305 All other employees*

Cleaning and Dyeing

306 Proprietors, Managers and Superintendents
307 Clerical and Selling Force
308 All other employees*

Food

Food industries, such as bakeries, flour and grain mills, sugar refineries, coffee roasting, confectionery

565 Proprietors, Managers and Superintendents
566 Clerical and Selling Force
567 All other employees*

Fruit and Vegetable Canning

568 Proprietors, Managers and Superintendents
569 Clerical and Selling Force
570 All other employees*

Slaughter and Packing Houses

571 Proprietors, Managers and Superintendents
572 Clerical and Selling Force
573 All other employees, except butchers*

Fish Curing and Packing

574 Proprietors, Managers and Superintendents
575 Clerical and Selling Force
576 All other employees*

Beverages (soft), such as distilled water, artificial ice, soda, grape juice, bottled spring water

310 Proprietors, Managers and Superintendents
311 Clerical and Selling Force
312 All other employees*

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* Except Nos. 123, 124, 128, 129, 134 and 141.

Liquors

Manufacturers and sellers of beer, whiskey, ale, porter, etc.

220 Proprietors, Managers and Superintendents
221 Clerical Force and salesmen
222 All other employees*

Tobacco

Manufacturers and sellers of cigars and other tobacco products

225 Proprietors, Managers and Superintendents
226 Clerical Force and Salesmen
227 All other employees*

Public Utilities

Water, gas, electricity, steam heat

580 Proprietors, Managers and Superintendents
581 Clerical Force and Salesmen
582 All other employees*

Transportation and Communication

600 Boatmen, canalmen and lockkeepers
601 Longshoremen and stevedores
602 Engineers and other employees on lakes (not Great Lakes), harbors and rivers

Railroad Transportation

610 Executive staff
611 Clerical staff
612 Conductors and brakemen
613 Enginemen
614 Firemen
615 Yardsmen
616 Shopmen
617 Trackmen
618 All others
Telegraphers and Telephone Operators under own heading

Elevated, Subway and Trolley and City Bus Lines

620 Executive staff
621 Clerical staff
622 Drivers and conductors except drivers on City Bus Lines
623 All other employees*

Telegraph and Telephone Companies

625 Executive staff
626 Clerical staff
627 Other employees, except telegraph and telephone operators and truck drivers

Express and Transfer Companies

628 Proprietors, Managers of
629 Other employees

Coal and Lumber Yards

630 Proprietors, Superintendents and Managers
631 Other employees

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* Except Nos. 123, 124, 128, 129, 134 and 141.

Retail Stores, and Dealers, Excluding Opticians, Optometrists, Bakers and Liquor Stores

230 Proprietors, Managers and Superintendents
231 Clerks and other employees

Wholesale Dealers and Stores, Importers and Exporters

700 Proprietors, Managers and Superintendents
701 Other employees
702 Machinists and Mechanics, not otherwise specified
710 College professors
711 Teachers, except teachers of music and dancing
712 Students, medical
713 Students, dental
714 Students, engineering
715 Students, chemistry
716 Students, other technical
717 Students, all other students

Hotels, Restaurants, Cafes, Lunch Rooms, Clubs and Caterers

235 Owners and Managers
236 Employees

Laundries

720 Owners, Managers and Superintendents
721 Employees
722 Launderers and laundresses (not in laundry)
723 Carriage and hack drivers
724 Draymen and teamsters
725 Livery stable keepers and managers
726 Livery stable, other employees, excluding hostlers and stablehands

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Building Trades

730 Plasterers, roofers and slaters
731 Stone masons and bricklayers
732 Structural iron workers
733 Other workers, including laborers

Amusements

240 Actors and actresses
240 Moving Theatre employees
240 Showmen and employees (amusements other than theatres and movies)
240 Theatrical owners, managers and employees
240 Musicians and teachers of music and dancing

800 Accountant and Auditors
250 Agents not otherwise specified and adjusters
801 Architects
802 Artists, sculptors and teachers of art.
803 Authors, editors and reporters and public speakers
805 Bankers and bank and foreign exchange, stock, insurance, real estate and other brokers
270 Brokers, employees of
251 Barbers, hairdressers and manicurists

255 Capitalists and retired and no occupation
256 Clerks and office employees not otherwise specified
810 Coopers
811 Designers and draftsmen, excluding architects and designers of clothes and other apparel
260 Designers of clothes and other apparel
815 Elevator, grain, employees
816 Fertilizer and phosphate mill employees
817 Hospital, sanatorium and asylum officials and employees except doctors and nurses
735 Firemen, stationary, not connected with plants already specified
900 Housewife
820 Judges (not of State Courts)
821 Lawyers and Law Clerks, Notaries and Commissioners of Deeds
740 Religious and charity workers and settlement workers
750 Laborers not connected with any industry already specified

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Miscellaneous

280 Bath and bathing-house employees
280 Boarding and lodging-house keepers
280 Bootblacks
280 Charwomen and cleaners
280 Elevatormen and tenders, janitors and sextons
280 House servants
280 Newsboys
280 Pawnbrokers
280 Porters not otherwise specified
280 Peddlers and junk dealers
280 Street cleaners

830 Midwives and untrained nurses
840 Officers and officials of companies not otherwise specified
841 Opticians and Optometrists
281 Paperhangers

845 Professional men not otherwise specified

850 Prison officials and employees, except doctors and nurses

855 Seamstress
860 Undertakers
861 Upholsterers